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Ubuntu vs. Fedora Clear Linux vs. openSUSE vs. Solus, Arch Etc

Intel Core i7-8086K testing of various Linux distributions for a future article on Phoronix.com

Automated Executive Summary

Clear Linux 23530 had the most wins, coming in first place for 50% of the tests.

Based on the geometric mean of all complete results, the fastest (Clear Linux 23530) was 2.209x the speed of the slowest (openSUSE Tumbleweed 20180703). Solus 3.9999 was 0.934x the speed of Clear Linux 23530, Manjaro 18 Beta was 0.819x the speed of Solus 3.9999, Antergos 18.7-Rolling was 0.922x the speed of Manjaro 18 Beta, Debian Buster Testing was 0.992x the speed of Antergos 18.7-Rolling, Fedora Workstation 28 was 0.962x the speed of Debian Buster Testing, Debian 9.4 was 0.985x the speed of Fedora Workstation 28, Ubuntu 18.04 LTS was 0.909x the speed of Debian 9.4, openSUSE Tumbleweed 20180703 was 0.753x the speed of Ubuntu 18.04 LTS.

The results with the greatest spread from best to worst included:

Systemd Total Boot Time (Test: Loader) at 271.346x
Systemd Total Boot Time (Test: Userspace) at 58.024x
OpenArena (Resolution: 1920 x 1080 - Total Frame Time) at 44x
PyBench (Total For Average Test Times) at 5.216x
PHPBench (PHP Benchmark Suite) at 4.403x
Zstd Compression (Compressing ubuntu-16.04.3-server-i386.img, Compression Level 19) at 4.129x

LAME MP3 Encoding (WAV To MP3) at 3.555x
Systemd Total Boot Time (Test: Total) at 3.446x
Systemd Total Boot Time (Test: Kernel) at 3.036x
OSBench (Test: Create Files) at 2.879x.

Test Systems:

Antergos 18.7-Rolling

Processor: Intel Core i7-8086K @ 5.00GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A (0809 BIOS), Chipset: Intel 8th Gen Core, Memory: 16384MB, Disk: 118GB INTEL SSDPEK1W120GA, Graphics: inteldrmfb (1200MHz), Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: Antergos Linux 18.7-ISO-Rolling, Kernel: 4.17.3-1-ARCH (x86_64), Desktop: GNOME Shell 3.28.2, Display Server: X Server 1.20.0, Display Driver: modesetting 1.20.0, Compiler: GCC 8.1.1 20180531, File-System: ext4, Screen Resolution: 3840x2160

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++ --enable-libmpx --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Disk Notes: NONE / relatime,rw
Processor Notes: Scaling Governor: intel_pstate powersave
Graphics Notes: SNA
Python Notes: Python 3.6.6
Security Notes: KPTI + __user pointer sanitization + Full generic retpoline IBPB IBRS_FW + SSB disabled via prctl and seccomp Protection

Clear Linux 23530

Processor: Intel Core i7-8086K @ 5.00GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A (0809 BIOS), Chipset: Intel 8th Gen Core, Memory: 16384MB, Disk: 118GB INTEL SSDPEK1W120GA, Graphics: Intel UHD 630 3072MB (1200MHz), Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: Clear Linux OS 23530, Kernel: 4.17.4-589.native (x86_64), Desktop: GNOME Shell 3.28.2, Display Server: X Server 1.20.0, Display Driver: modesetting 1.20.0, OpenGL: 4.5 Mesa 18.2.0-devel, Vulkan: 1.0.39, Compiler: GCC 8.1.1 20180514 + Clang 6.0.0 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 3840x2160

Environment Notes:
CFFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wl--copy-dt-needed-entries-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl now-Wl-z-Wl relro-malign-data=abi-fno-semantic-interposition-ftree-vectorize-ftree-loop-vectorize-Wl-sort-common-Wl--enable-new-dtags MESA_GLSL_CACHE_DISABLE=0
CFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-Wl--copy-dt-needed-entries-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl now-Wl-z-Wl relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags
CXXFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-Wl--copy-dt-needed-entries-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl now-Wl-z-Wl relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-fvisibility-inlines-hidden-Wl--enable-new-dtags
FFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wl--copy-dt-needed-entries-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl now-Wl-z-Wl relro-malign-data=abi-fno-semantic-interposition-ftree-vectorize-ftree-loop-vectorize-Wl--enable-new-dtags THEANO_FLAGS=floatX=float32 openmp=true gcc.cxxflags="-ftree-vectorize-mavx"
Compiler Notes: --build=x86_64-generic-linux --disable-libmpx --disable-libunwind-exceptions --disable-multiarch --disable-vtable-verify --enable-__cxa_atexit --enable-bootstrap --enable-clocale=gnu --enable-gnu-indirect-function --enable-languages=c,c++,fortran,go --enable-ld=default --enable-libstdcxx-pch --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --exec-prefix=/usr --includedir=/usr/include --target=x86_64-generic-linux --with-arch=westmere --with-glibc-version=2.19 --with-gnu-ld --with-isl --with-ppl=yes --with-tune=haswell
Disk Notes: MQ-DEADLINE / relatime,rw,stripe=256

Processor Notes: Scaling Governor: intel_pstate performance
Python Notes: Python 3.7.0
Security Notes: KPTI + __user pointer sanitization + Full generic retpoline IBPB IBRS_FW + SSB disabled via prctl and seccomp Protection

Debian 9.4

Processor: Intel Core i7-8086K @ 5.00GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A (0809 BIOS), Chipset: Intel Device 3ec2, Memory: 2 x 8192 MB DDR4-3000MHz, Disk: 118GB INTEL SSDPEK1W120GA, Graphics: EFI VGA, Audio: Realtek Generic, Network: Intel Connection

OS: Debian 9.4, Kernel: 4.9.0-6-amd64 (x86_64), Desktop: GNOME Shell 3.22.3, Display Server: X Server 1.19.2, Display Driver: modesetting 1.19.2, Compiler: GCC 6.3.0 20170516, File-System: ext4, Screen Resolution: 1024x768

Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-vtable-verify --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,ada,c++,java,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-arch-directory=amd64 --with-default-libstdcxx-abi=new --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic -v
Disk Notes: none / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: intel_pstate powersave
Python Notes: Python 2.7.13 + Python 3.5.3
Security Notes: KPTI + __user pointer sanitization + Full generic retpoline IBPB IBRS_FW Protection

Debian Buster Testing

Processor: Intel Core i7-8086K @ 5.00GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A (0809 BIOS), Chipset: Intel 8th Gen Core, Memory: 2 x 8192 MB DDR4-3000MT/s, Disk: 118GB INTEL SSDPEK1W120GA, Graphics: inteldrmfb (1200MHz), Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: Debian testing, Kernel: 4.16.0-2-amd64 (x86_64), Desktop: GNOME Shell 3.28.2, Display Server: X Server 1.19.2 + Wayland, Display Driver: modesetting 1.19.2, Compiler: GCC 7.3.0, File-System: ext4, Screen Resolution: 3840x2160

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Disk Notes: NONE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: intel_pstate powersave
Python Notes: Python 2.7.15 + Python 3.6.6
Security Notes: KPTI + __user pointer sanitization + Full generic retpoline IBPB IBRS_FW + SSB disabled via prctl and seccomp Protection

Fedora Workstation 28

Processor: Intel Core i7-8086K @ 5.00GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A (0809 BIOS), Chipset: Intel 8th Gen Core, Memory: 16384MB, Disk: 118GB INTEL SSDPEK1W120GA, Graphics: Intel HD 3072MB (1200MHz), Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: Fedora 28, Kernel: 4.17.3-200.fc28.x86_64 (x86_64), Desktop: GNOME Shell 3.28.2, Display Server: Wayland, OpenGL: 4.5 Mesa 18.0.5, Compiler: GCC 8.1.1 20180502, File-System: ext4, Screen Resolution: 3840x2160

Compiler Notes: --build=x86_64-redhat-linux --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,objc,obj-c++,ada,go,lto --enable-libmpx --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=i686 --with-gcc-major-version-only --with-isl --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Disk Notes: NONE / relatime,rw,seclabel
Processor Notes: Scaling Governor: intel_pstate powersave
Python Notes: Python 2.7.15 + Python 3.6.5
Security Notes: SELinux + KPTI + __user pointer sanitization + Full generic retpoline IBPB IBRS_FW + SSB disabled via prctl and seccomp Protection

Manjaro 18 Beta

Processor: Intel Core i7-8086K @ 5.00GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A (0809 BIOS), Chipset: Intel 8th Gen Core, Memory: 16384MB, Disk: 118GB INTEL SSDPEK1W120GA, Graphics: Intel UHD 630 3072MB (1200MHz), Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: ManjaroLinux 17.1.11, Kernel: 4.16.18-1-MANJARO (x86_64), Desktop: Xfce 4.12, Display Server: X Server 1.19.6, Display Driver: intel 2.99.917, OpenGL: 4.5 Mesa 18.1.3, Compiler: GCC 8.1.1 20180531, File-System: ext4, Screen Resolution: 3840x2160

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++ --enable-libmpx --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Disk Notes: NONE / data=ordered,noatime,rw
Processor Notes: Scaling Governor: intel_pstate powersave
Graphics Notes: SNA
Python Notes: Python 3.6.5
Security Notes: KPTI + __user pointer sanitization + Full generic retpoline IBPB IBRS_FW + SSB disabled via prctl and seccomp Protection

Solus 3.9999

Processor: Intel Core i7-8086K @ 5.00GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A (0809 BIOS), Chipset: Intel Device 3ec2, Memory: 16384MB, Disk: 118GB INTEL SSDPEK1W120GA, Graphics: Intel UHD 630 3072MB (1200MHz), Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: Solus 3.9999, Kernel: 4.17.2-78.current (x86_64), Desktop: Budgie, Display Server: X Server 1.19.6, Display Driver: modesetting 1.19.6, OpenGL: 4.5 Mesa 18.1.1, Compiler: GCC 7.3.0, File-System: ext4, Screen Resolution: 3840x2160

Compiler Notes: --build=x86_64-solus-linux --enable-__cxa_atexit --enable-clocale=gnu --enable-gnu-indirect-function --enable-gold --enable-languages=c,c++,fortran --enable-ld=default --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --target=x86_64-solus-linux --with-arch_32=i686 --with-gnu-ld --with-linker-hash-style=gnu --with-multilib-list=m32,m64
Disk Notes: NONE / errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: intel_pstate powersave
Python Notes: Python 2.7.15 + Python 3.6.5
Security Notes: KPTI + __user pointer sanitization + Full generic retpoline IBPB IBRS_FW + SSB disabled via prctl and seccomp Protection

Ubuntu 18.04 LTS

Processor: Intel Core i7-8086K @ 5.00GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A (0809 BIOS), Chipset: Intel Device 3ec2, Memory: 16384MB, Disk: 118GB INTEL SSDPEK1W120GA, Graphics: inteldrmfb (1200MHz), Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: Ubuntu 18.04, Kernel: 4.15.0-23-generic (x86_64), Desktop: GNOME Shell 3.28.1, Display Server: X Server 1.19.6, Display Driver: modesetting 1.19.6, Compiler: GCC 7.3.0, File-System: ext4, Screen Resolution: 3840x2160

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-as=/usr/bin/x86_64-linux-gnu-as --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-ld=/usr/bin/x86_64-linux-gnu-ld --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Disk Notes: NONE / data=ordered,errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: intel_pstate powersave
Python Notes: Python 2.7.15rc1 + Python 3.6.5
Security Notes: KPTI + __user pointer sanitization + Full generic retpoline IBPB IBRS_FW + SSB disabled via prctl and seccomp Protection

openSUSE Tumbleweed 20180703

Processor: Intel Core i7-8086K @ 5.00GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A (0809 BIOS), Chipset: Intel Device 3ec2, Memory: 16384MB, Disk: 118GB INTEL SSDPEK1W120GA, Graphics: Intel UHD 630 3072MB (1200MHz), Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: openSUSE Tumbleweed 20180703, Kernel: 4.17.3-1-default (x86_64), Desktop: KDE Plasma 5.13.2, Display Server: X Server 1.19.6, Display Driver: modesetting 1.19.6, OpenGL: 4.5 Mesa 18.1.2, Compiler: GCC 8.1.1 20180614 [gcc-8-branch revision 261584], File-System: xfs, Screen Resolution: 3840x2160

Compiler Notes: --build=x86_64-suse-linux --disable-cet --disable-libcc1 --disable-libssp --disable-libstdcxx-pch --disable-libvtv --disable-werror --enable-__cxa_atexit --enable-checking=release --enable-gnu-indirect-function --enable-languages=c,c++,objc,fortran,obj-c++,ada,go --enable-libstdcxx-allocator=new --enable-linux-futex --enable-multilib --enable-offload-targets=hsa,nvptx-none=/usr/nvptx-none, --enable-plugin --enable-ssp --enable-version-specific-runtime-libs --host=x86_64-suse-linux --mandir=/usr/share/man --with-arch-32=x86-64 --with-gcc-major-version-only --with-slibdir=/lib64 --with-tune=generic --without-cuda-driver --without-system-libunwind
Disk Notes: MQ-DEADLINE / attr2,inode64,noquota,relatime,rw
Processor Notes: Scaling Governor: intel_pstate powersave
Python Notes: Python 2.7.15 + Python 3.6.5
Security Notes: KPTI + __user pointer sanitization + Indirect Branch Restricted Speculation IBPB IBRS_FW + SSB disabled via prctl and seccomp Protection

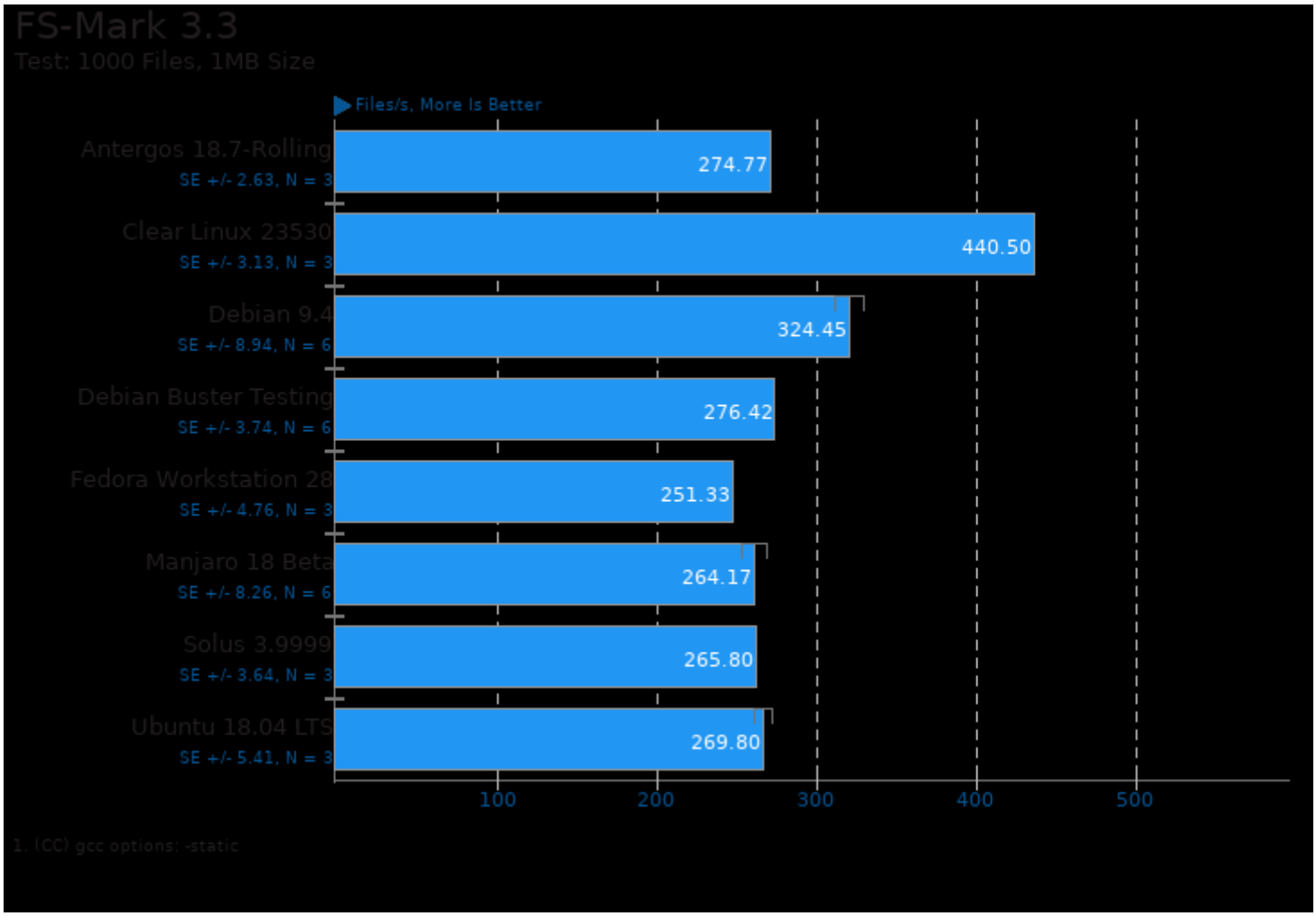
	Antergos 18.7-Rolling	Clear Linux 23530	Debian 9.4	Debian Buster Testing	Fedora Workstation 28	Manjaro 18 Beta	Solus 3.9999	Ubuntu 18.04 LTS	openSUSE Tumbleweed 20180703
FS-Mark - 1.F.1.S (Files/s)	274.77	**440.50**	324.45	276.42	**251.33**	264.17	265.80	269.80	
Normalized	62.38%	100%	73.65%	62.75%	57.06%	59.97%	60.34%	61.25%	
Standard Deviation	1.7%	1.2%	6.7%	3.3%	3.3%	7.7%	2.4%	3.5%	
FS-Mark - 5.F.1.S.4.T (Files/s)	**394.53**	**537.77**	429.07	421.07	423.47	403.07	407.20	419.87	
Normalized	73.36%	100%	79.79%	78.3%	78.75%	74.95%	75.72%	78.08%	
Standard Deviation	2.3%	2%	0.9%	0.1%	1%	1.2%	1.8%	0.4%	
FS-Mark - 4.F.3.S.D.1.S (Files/s)	267.87	**423.57**	340.42	269.73	**246.67**	265.26	279.25	269.73	
Normalized	63.24%	100%	80.37%	63.68%	58.24%	62.62%	65.93%	63.68%	
Standard Deviation	2.5%	1.8%	10.6%	2.5%	9.3%	3.4%	5.2%	0.6%	
ET: Legacy - Renderer2 - 3840 x 2160 (FPS)	35.67	**35.93**			**33.07**	34.83	34.97	35.23	34.43
Normalized	99.28%	100%			92.04%	96.94%	97.33%	98.05%	95.83%
Standard Deviation	0.6%	0.4%			0.2%	0.4%	0.2%	0.2%	0.2%
OpenArena - 1920 x 1080 (FPS)	**88.87**	87.30			**52.77**	82.90	84.20	86.80	69.53
Normalized	100%	98.23%			59.38%	93.28%	94.75%	97.67%	78.24%
Standard Deviation	0.2%	0.2%			0.3%	4.2%	0.2%	0.4%	0.2%
Tesseract - 1920 x 1080 (FPS)	55.63	**56.84**			**44.01**	49.96	54.53	54.19	
Normalized	97.87%	100%			77.43%	87.9%	95.94%	95.34%	
Standard Deviation	0.4%	0.4%			0.4%	0.3%	0.2%	1.1%	
Tesseract - 3840 x 2160 (FPS)	**23.21**	22.69			**20.97**	22.31	22.94	23.07	
Normalized	100%	97.76%			90.35%	96.12%	98.84%	99.4%	
Standard Deviation	1.9%	0.4%			0.4%	0.3%	0.9%	0.5%	
Xonotic - 3840 x 2160 - Low (FPS)	83.22	**83.27**			**71.13**	78.28	78.31	81.10	77.50
Normalized	99.94%	100%			85.42%	94.01%	94.04%	97.39%	93.07%
Standard Deviation	0.1%	0.1%			0.4%	0.4%	0.2%	0.1%	0.3%

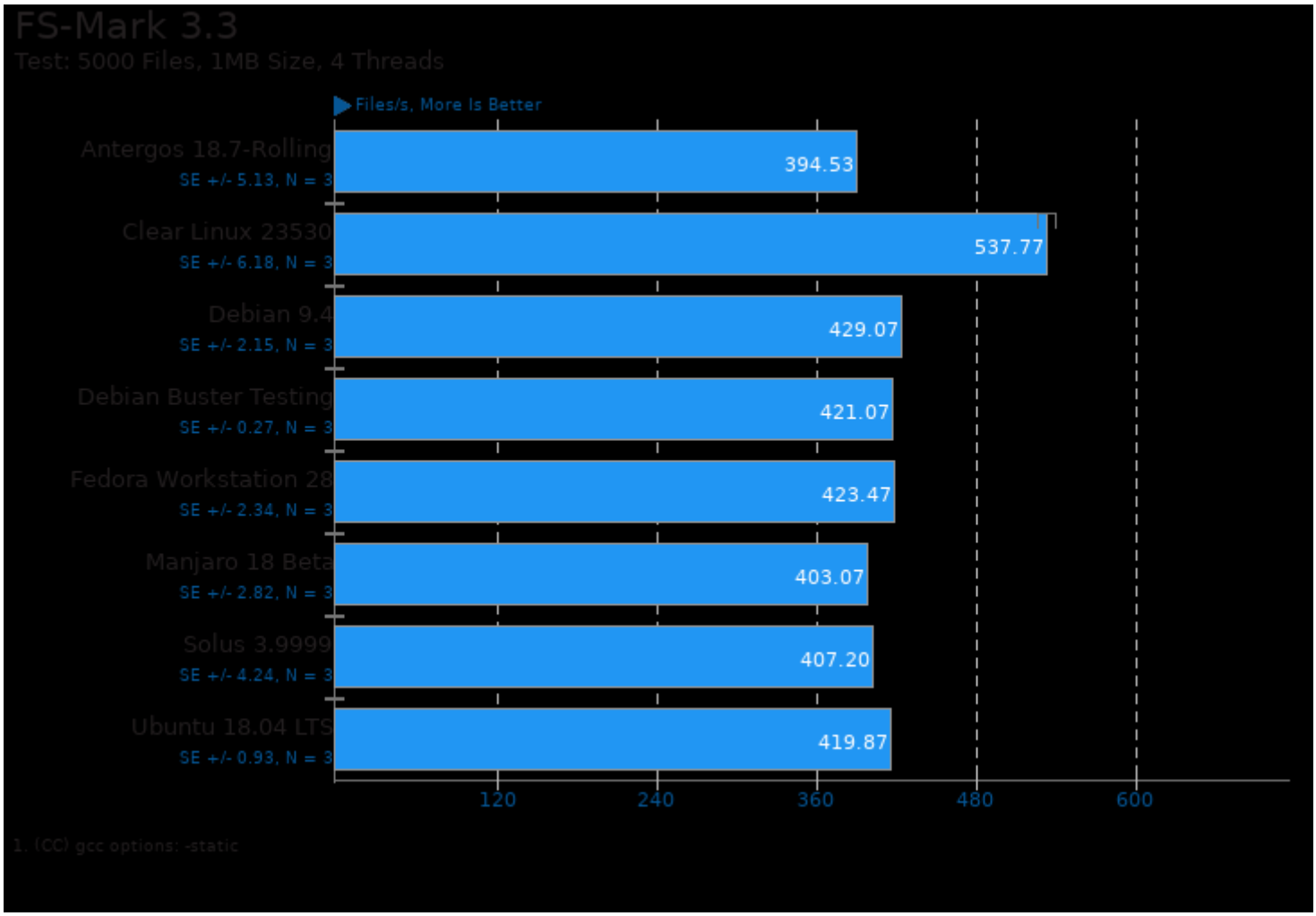
Xonotic - 3840 x 2160 - High (FPS)	**39.48**	39.18			**36.12**	38.52	38.08	39.34	37.74
Normalized	100%	99.24%			91.49%	97.57%	96.45%	99.65%	95.59%
Standard Deviation	0.2%	0.1%			0.1%	0.3%	0%	0.2%	0.5%
ParaView - Many Spheres - 1920 x 1080 (Frames / Sec)	**6.68**	6.39			6.55	6.67	**6.37**	6.41	6.38
Normalized	100%	95.66%			98.05%	99.85%	95.36%	95.96%	95.51%
Standard Deviation	0%	0.1%			1.9%	0.1%	0%	0%	0.1%
ParaView - Many Spheres - 1920 x 1080 (MiPolys / Sec)	**669.51**	640.97			656.17	668.36	**638.64**	642.57	639.96
Normalized	100%	95.74%			98.01%	99.83%	95.39%	95.98%	95.59%
Standard Deviation	0.1%	0.1%			2%	0.1%	0%	0.1%	0.1%
ParaView - Wavelet Volume - 1920 x 1080 (Frames / Sec)	24.91	**27.69**			24.78	25.12	24.76	24.83	**22.86**
Normalized	89.96%	100%			89.49%	90.72%	89.42%	89.67%	82.56%
Standard Deviation	0.2%	0.2%			0.2%	0.5%	0.2%	0.6%	0.9%
ParaView - Wavelet Volume - 1920 x 1080 (MiVoxels / Sec)	398.61	**443.02**			396.55	401.87	396.15	397.27	**365.83**
Normalized	89.98%	100%			89.51%	90.71%	89.42%	89.67%	82.58%
Standard Deviation	0.2%	0.2%			0.3%	0.5%	0.2%	0.6%	0.9%
ParaView - Wavelet Contour - 1920 x 1080 (Frames / Sec)	18.91	17.94			18.17	**18.94**	**17.70**	18.11	17.72
Normalized	99.84%	94.72%			95.93%	100%	93.45%	95.62%	93.56%
Standard Deviation	0.1%	0.1%			2%	0.1%	0%	2.1%	0.1%
ParaView - Wavelet Contour - 1920 x 1080 (MiPolys / Sec)	197.02	187.01			189.34	**197.37**	**184.43**	188.71	184.67
Normalized	99.82%	94.75%			95.93%	100%	93.44%	95.61%	93.57%
Standard Deviation	0.1%	0.1%			2%	0.1%	0%	2.1%	0.1%
Tinymembench - Standard Memcpy (MB/s)	18426	**18112**	18442	18774	18185	18401	18199	18647	**18876**
Normalized	97.61%	95.95%	97.7%	99.46%	96.34%	97.48%	96.41%	98.78%	100%
Tinymembench - Standard Memset (MB/s)	39016	**40604**	**36350**	40285	37642	38917	37969	39654	40058
Normalized	96.09%	100%	89.52%	99.22%	92.71%	95.84%	93.51%	97.66%	98.66%
Sockperf - Throughput	723567	784258	845861	**873780**	**371266**	755228	719789	770182	
Normalized	82.81%	89.75%	96.8%	100%	42.49%	86.43%	82.38%	88.14%	
Standard Deviation	5.9%	1.6%	2.4%	1.6%	3%	1.3%	1.3%	1%	
Sockperf - Latency Ping Pong (usec)	2.64	2.63	2.37	**2.34**	**3.98**	2.90	2.71	2.73	
Normalized	88.64%	88.97%	98.73%	100%	58.79%	80.69%	86.35%	85.71%	
Standard Deviation	1.2%	1.1%	1.6%	1.9%	1.5%	1%	1%	1.1%	

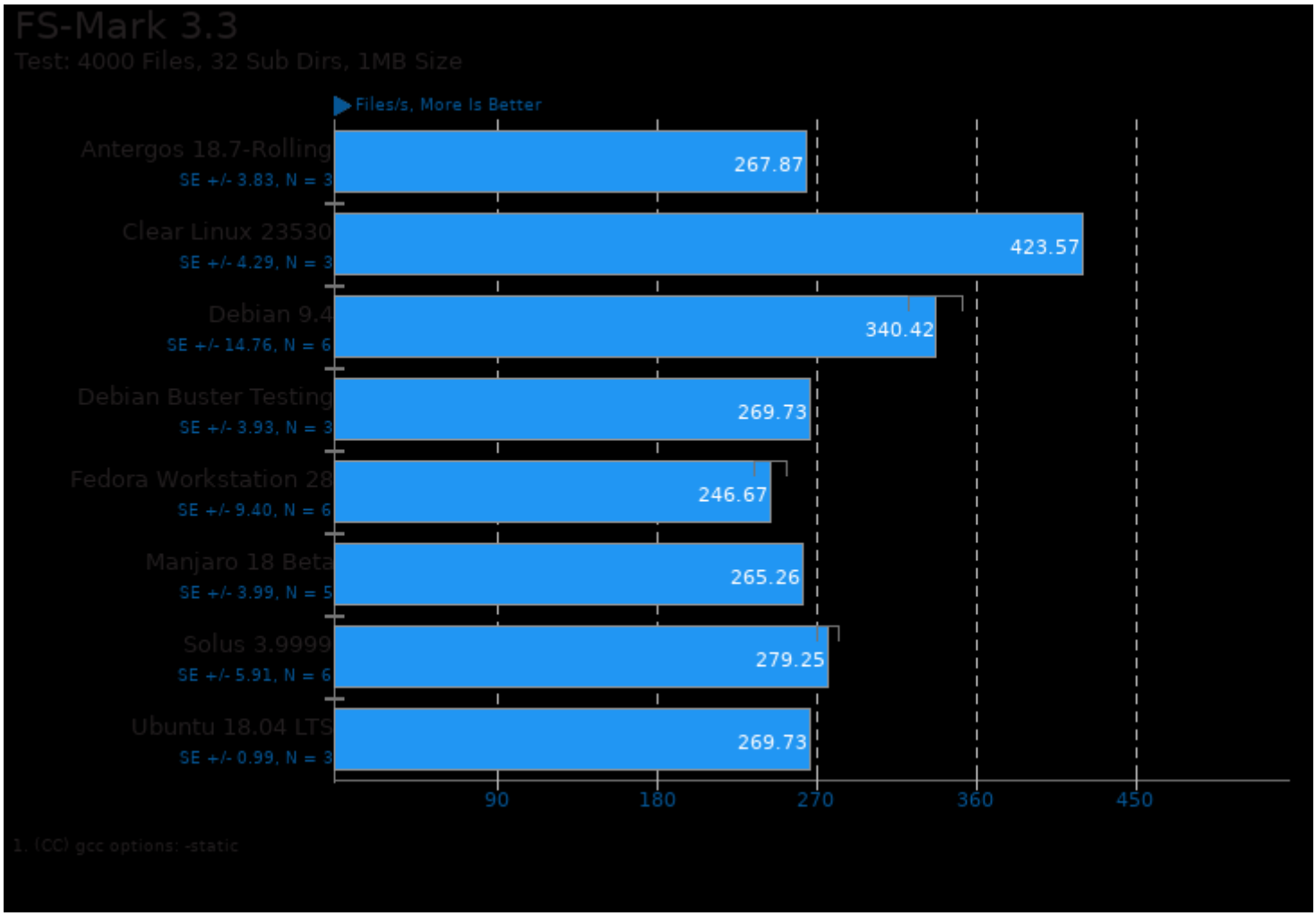
Sockperf - Latency Under Load (usec)	18.03	18.75	12.86	14.11	14.88	15.49	18.01	13.44	
Normalized	71.33%	68.59%	100%	91.14%	86.42%	83.02%	71.4%	95.68%	
Standard Deviation	14%	22.3%	52.6%	41.4%	62.6%	28.3%	1.8%	49.8%	
Rodinia - OpenMP LavaMD (sec)	88.78	82.08	89.21	90.18	84.47	83.58	84.98	93.15	85.08
Normalized	92.45%	100%	92.01%	91.02%	97.17%	98.21%	96.59%	88.12%	96.47%
Standard Deviation	0.4%	0.9%	0.4%	0.8%	0.8%	0.6%	0.3%	1.8%	0.9%
Rodinia - OpenMP CFD Solver (sec)	25.78	27.28	26.46	26.12	25.94	25.89	26.74	27.13	26.77
Normalized	100%	94.5%	97.43%	98.7%	99.38%	99.58%	96.41%	95.02%	96.3%
Standard Deviation	0.3%	0.5%	0.2%	1.1%	0.2%	0.5%	0.2%	0.2%	1.1%
Rodinia - O.S (sec)	18.28	19.14	19.61	19.36	18.46	18.32	19.49	19.53	18.48
Normalized	100%	95.51%	93.22%	94.42%	99.02%	99.78%	93.79%	93.6%	98.92%
Standard Deviation	0.2%	9.2%	0.1%	0.2%	0.1%	0.1%	0.2%	0%	0%
LuaJIT - Composite (Mflops)	1832	1834	1836	1813	1837	1834	1827	1830	1818
Normalized	99.75%	99.86%	99.99%	98.72%	100%	99.87%	99.46%	99.67%	98.97%
Standard Deviation	0%	0.2%	0.1%	0.2%	0.1%	0.2%	0.1%	0.6%	0.2%
Crafty - Elapsed Time (Nodes/s)	10001484	10527050	9892590	9947431	10460691	9980900	10280781	9896840	8552782
Normalized	95.01%	100%	93.97%	94.49%	99.37%	94.81%	97.66%	94.01%	81.25%
Standard Deviation	0.4%	0.1%	0.2%	1.2%	0.1%	0.1%	0.2%	0.3%	0.1%
VP9 libvpx Encoding - vpxenc (FPS)	18.79	19.35	18.62	18.79		18.96	19.03	18.74	15.42
Normalized	97.11%	100%	96.23%	97.11%		97.98%	98.35%	96.85%	79.69%
Standard Deviation	2.4%	0.2%	0.4%	1.7%		0.7%	0.2%	1.3%	0%
Himeno Benchmark - P.P.S (MFLOPS)	2932	2891	3332	3331	2944	2959	2859	3007	3261
Normalized	88%	86.78%	100%	99.99%	88.36%	88.81%	85.81%	90.26%	97.89%
Standard Deviation	1.4%	2.3%	1.8%	0.4%	0.5%	0.5%	0.6%	3.4%	1.3%
Stockfish - Total Time (Nodes/s)	22051555	23474950	22008042	21970768	23050415	21912004	22255004	19780790	23795805
Normalized	92.67%	98.65%	92.49%	92.33%	96.87%	92.08%	93.52%	83.13%	100%
Standard Deviation	1.1%	0%	2.2%	2.7%	2%	0.4%	0.5%	1.3%	1%
Timed Linux Kernel Compilation - Time To Compile (sec)	73.96	62.80	68.39	67.76	66.33	73.83	61.60	75.00	
Normalized	83.29%	98.09%	90.07%	90.91%	92.87%	83.43%	100%	82.13%	
Standard Deviation	2.1%	1.5%	1.2%	1.7%	2.3%	2.3%	1%	2.1%	
C-Ray - Total Time (sec)	9.78	9.43	9.70	11.00	9.77	9.78	11.09	11.95	9.85
Normalized	96.42%	100%	97.22%	85.73%	96.52%	96.42%	85.03%	78.91%	95.74%
Standard Deviation	0.1%	0%	0.1%	0.1%	0.1%	0.2%	0%	0.1%	0.2%
FLAC Audio Encoding - WAV To	7.61	7.19	7.23	7.59	7.61	7.63	7.54	7.57	7.81
Normalized	94.48%	100%	99.45%	94.73%	94.48%	94.23%	95.36%	94.98%	92.06%
Standard Deviation	0.5%	0.5%	0.9%	1.6%	0.6%	0.5%	0.4%	0.9%	0.8%
LAME MP3 Encoding - WAV To MP3 (sec)	24.23	7.03	24.06	24.99	24.06	24.25	8.89	24.04	24.84
Normalized	29.01%	100%	29.22%	28.13%	29.22%	28.99%	79.08%	29.24%	28.3%
Standard Deviation	0%	0.1%	0.8%	1.1%	0%	0%	0.1%	0.2%	0.1%

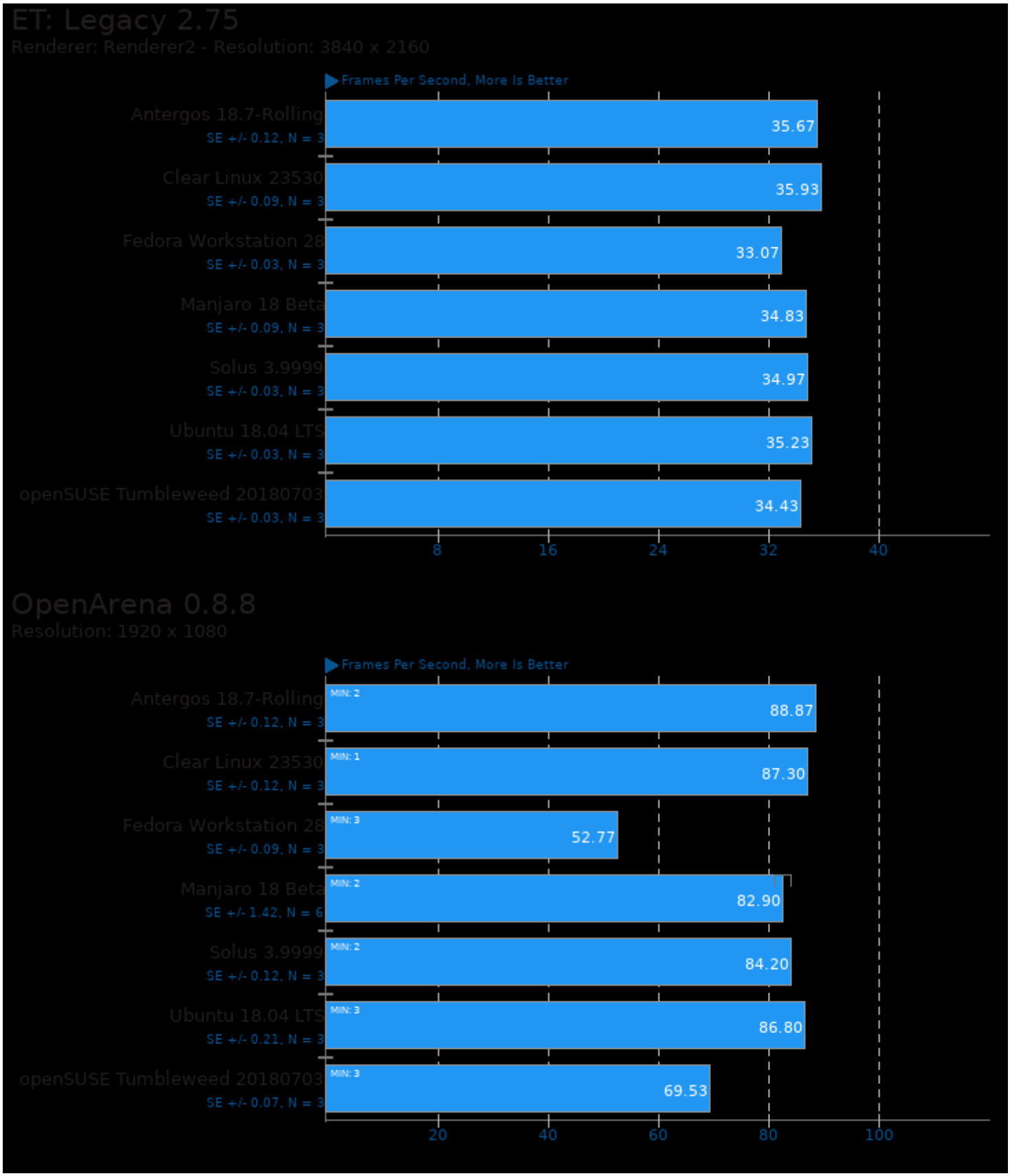
Zstd Compression - C.u.1.0.3.s.i.i.C.L.1 (sec)	107.47	29.22	120.64	82.40	107.80	94.52	87.51		81.71
Normalized	27.19%	100%	24.22%	35.46%	27.11%	30.91%	33.39%		35.76%
Standard Deviation	0.1%	0.1%	0.4%	0.7%	0.1%	0.9%	0.1%		0.2%
System Libxml2 Parsing - 1 MB (ms)	337	329			343	340	295		573
Normalized	87.54%	89.67%			86.01%	86.76%	100%		51.48%
Standard Deviation	2.1%				3.2%	2%			
Systemd Total Boot Time - Total (ms)	20724	13486	25681	21350	24439	16110	16315	39280	46468
Normalized	65.07%	100%	52.51%	63.16%	55.18%	83.71%	82.66%	34.33%	29.02%
Systemd Total Boot Time - Kernel (ms)	1514	851.80	1417	2012	983	1511	685	2080	2071
Normalized	45.24%	80.42%	48.34%	34.05%	69.68%	45.33%	100%	32.93%	33.08%
Systemd Total Boot Time - Loader (ms)	5407	31.20	1787	5553	1000	670	67	3310	8466
Normalized	0.58%	100%	1.75%	0.56%	3.12%	4.66%	46.57%	0.94%	0.37%
Systemd Total Boot Time - Firmware (ms)	13162	12099	12867	12877	12890	12939	14524	12910	12855
Normalized	91.93%	100%	94.03%	93.96%	93.87%	93.51%	83.31%	93.72%	94.12%
Systemd Total Boot Time - Userspace (ms)	640	502.90	9608	907	8021	988	374	20970	21701
Normalized	58.44%	74.37%	3.89%	41.23%	4.66%	37.85%	100%	1.78%	1.72%
PostgreSQL pgbench - Buffer Test - Normal Load - Read Only (TPS)	227157	232306	215469	213625	219383	226729	217402	202916	
Normalized	97.78%	100%	92.75%	91.96%	94.44%	97.6%	93.58%	87.35%	
Standard Deviation	0.3%	0.2%	0.1%	0.7%	0.9%	0.4%	0.3%	0.7%	
PostgreSQL pgbench - Buffer Test - Normal Load - Read Write (TPS)	25380	25969	25402	25032	25803	25503	25251	24777	
Normalized	97.73%	100%	97.82%	96.39%	99.36%	98.21%	97.24%	95.41%	
Standard Deviation	0.4%	0.9%	2.6%	1.9%	0.8%	2%	0.9%	1.7%	
Redis - GET (Reqs/sec)	3997699	4304497	3420815	3990633	3297241	3893847	4028686	3821367	1656422
Normalized	92.87%	100%	79.47%	92.71%	76.6%	90.46%	93.59%	88.78%	38.48%
Standard Deviation	3.3%	1.1%	0.5%	2.9%	1.6%	3.1%	2.6%	6.4%	3.4%
Redis - SET (Reqs/sec)	2344462	2955705	2391128	2738029	2341412	2602264	2525154	2720153	1017765
Normalized	79.32%	100%	80.9%	92.64%	79.22%	88.04%	85.43%	92.03%	34.43%
Standard Deviation	10%	0.5%	2.1%	2.1%	10.3%	1.4%	6.3%	1.3%	1.4%
PyBench - T.F.A.T.T (Milliseconds)	997	1176	1080	841	1072	990	979	1030	4387
Normalized	84.35%	71.51%	77.87%	100%	78.45%	84.95%	85.9%	81.65%	19.17%
Standard Deviation	0.6%	0.4%	0.1%		0.3%	0.3%	0.2%	0.6%	0.1%

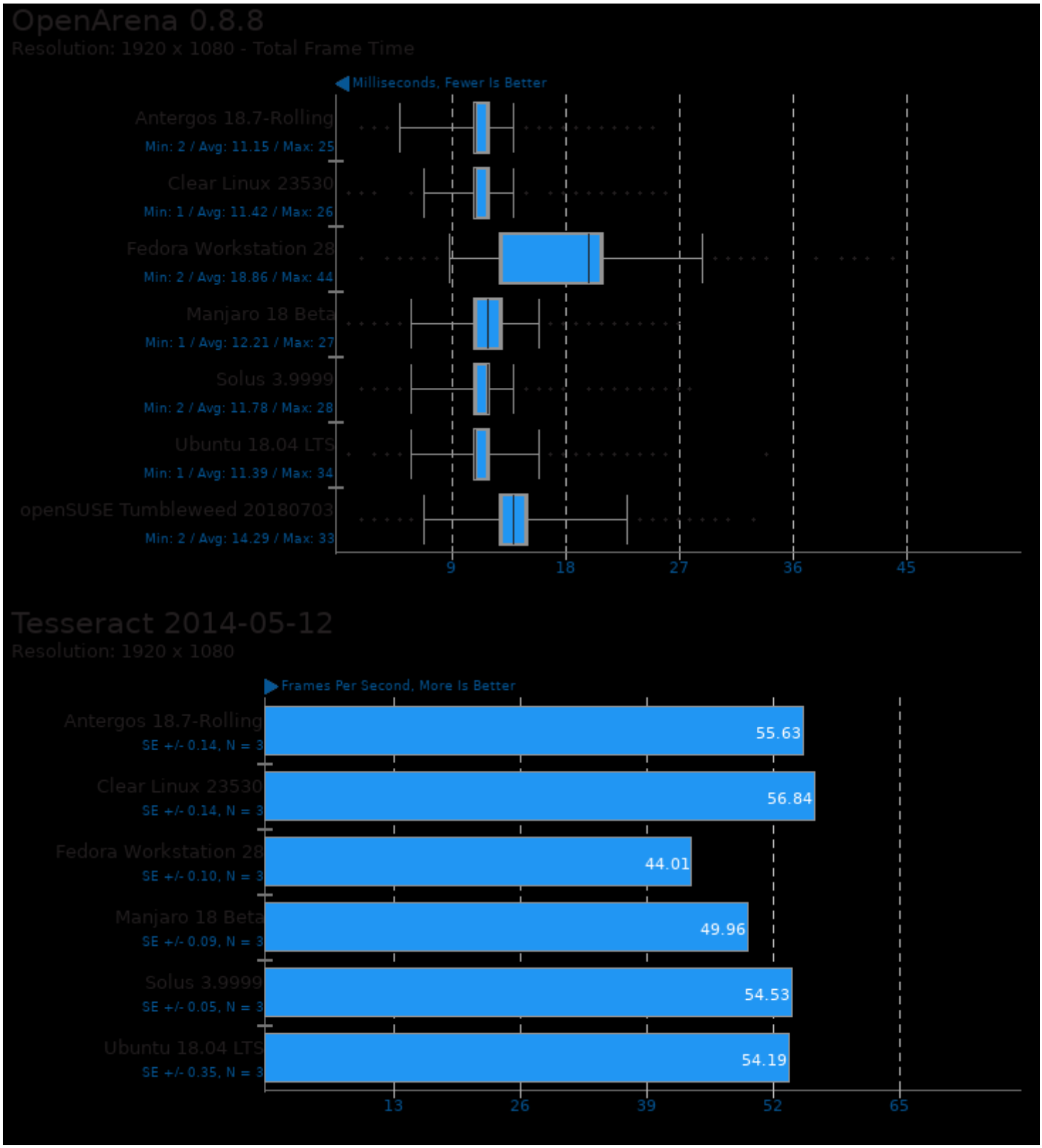
PHPBench - P.B.S (Score)	817049	**1014366**	657929	798123	789209	820129	845952	805127	**230363**
Normalized	80.55%	100%	64.86%	78.68%	77.8%	80.85%	83.4%	79.37%	22.71%
Standard Deviation	0.4%	0.2%	0.1%	0.6%	0.2%	0.2%	0.3%	1.1%	0.1%
Git - T.T.C.C.G.C (sec)	4.28	4.34	**4.25**	**4.25**	4.32	4.31	4.31	4.29	**5.39**
Normalized	99.3%	97.93%	100%	100%	98.38%	98.61%	98.61%	99.07%	78.85%
Standard Deviation	1.8%	0.2%	0.2%	3%	0.2%	0.1%	1.2%	1.1%	0.3%
OSBench - Create Files (us/Event)	11.65	10.53	10.70	10.45	16.99	11.50	**9.58**	10.49	**27.58**
Normalized	82.23%	90.98%	89.53%	91.67%	56.39%	83.3%	100%	91.33%	34.74%
Standard Deviation	0.5%	0.5%	0.5%	1.5%	0.2%	0.6%	0.7%	0.6%	0.4%
OSBench - Create Threads (us/Event)	10.14	9.51	**8.11**	9.61	10.32	10.29	10.04	9.09	**11.56**
Normalized	79.98%	85.28%	100%	84.39%	78.59%	78.81%	80.78%	89.22%	70.16%
Standard Deviation	3.4%	3.2%	4%	9.3%	3.6%	3.3%	3.4%	3.4%	7.8%
OSBench - Launch Programs (us/Event)	23.56	22.37	**20.23**	22.11	24.77	23.84	23.43	21.13	**24.94**
Normalized	85.87%	90.43%	100%	91.5%	81.67%	84.86%	86.34%	95.74%	81.11%
Standard Deviation	0.6%	0.4%	0.5%	0.1%	0.2%	1.8%	0.5%	0.4%	0.9%
OSBench - Memory Allocations	59.96	**43.96**	57.07	58.35	59.08	60.11	59.13	57.58	**75.39**
Normalized	73.32%	100%	77.03%	75.34%	74.41%	73.13%	74.34%	76.35%	58.31%
Standard Deviation	0.2%	0.1%	0.1%	0.1%	0.2%	0.2%	0.1%	0.4%	0%

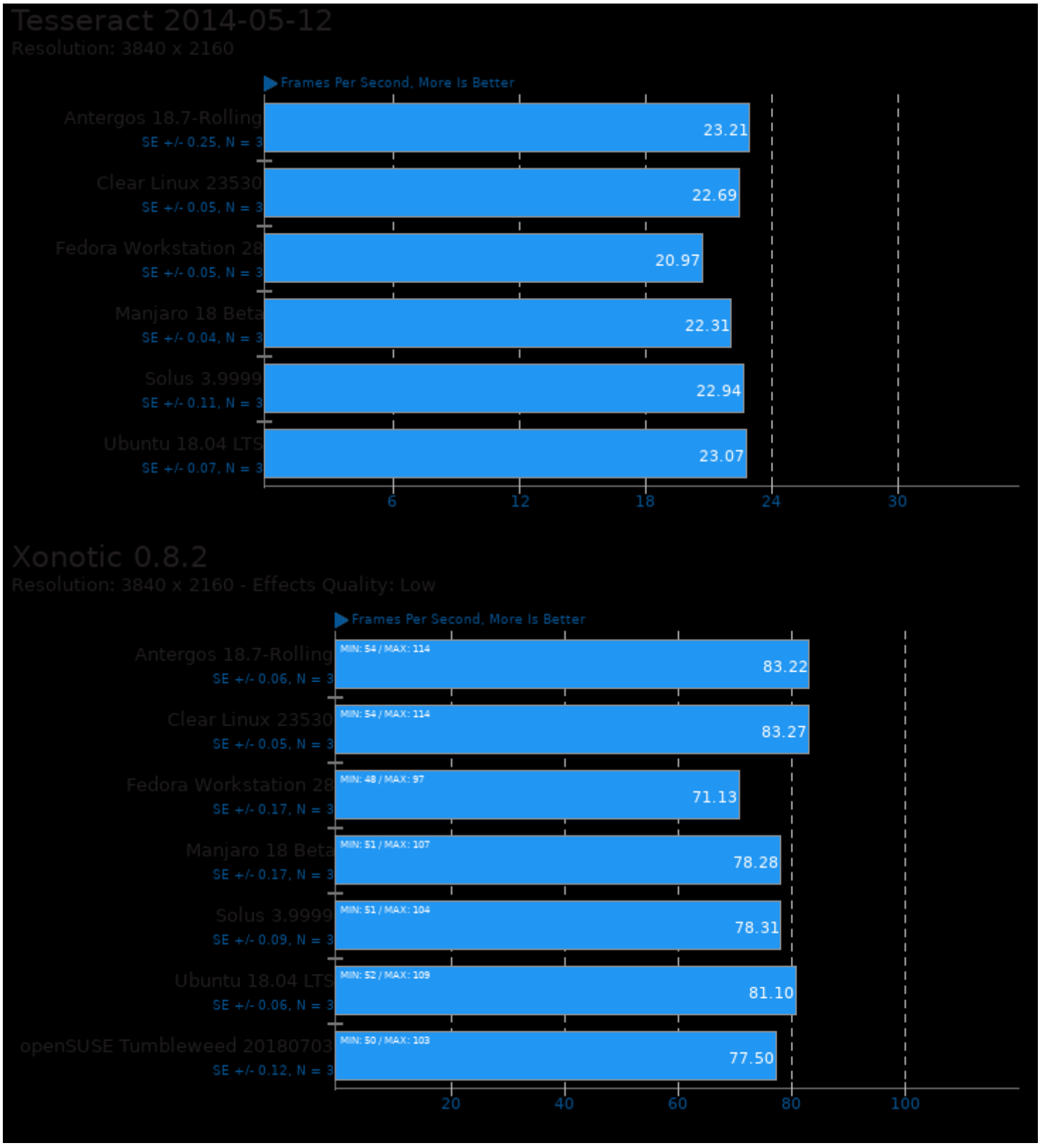

FS-Mark 3.3
Test: 1000 Files, 1MB Size
Files/s, More Is Better
Antergos 18.7-Rolling
SE +/- 2.63, N = 3
274.77
Clear Linux 23530
SE +/- 3.13, N = 3
440.50
Debian 9.4
SE +/- 8.94, N = 6
324.45
Debian Buster Testing
SE +/- 3.74, N = 6
276.42
Fedora Workstation 28
SE +/- 4.76, N = 3
251.33
Manjaro 18 Beta
SE +/- 8.26, N = 6
264.17
Solus 3.9999
SE +/- 3.64, N = 3
265.80
Ubuntu 18.04 LTS
SE +/- 5.41, N = 3
269.80
100
200
300
400
500
1. (CC) gcc options: -static

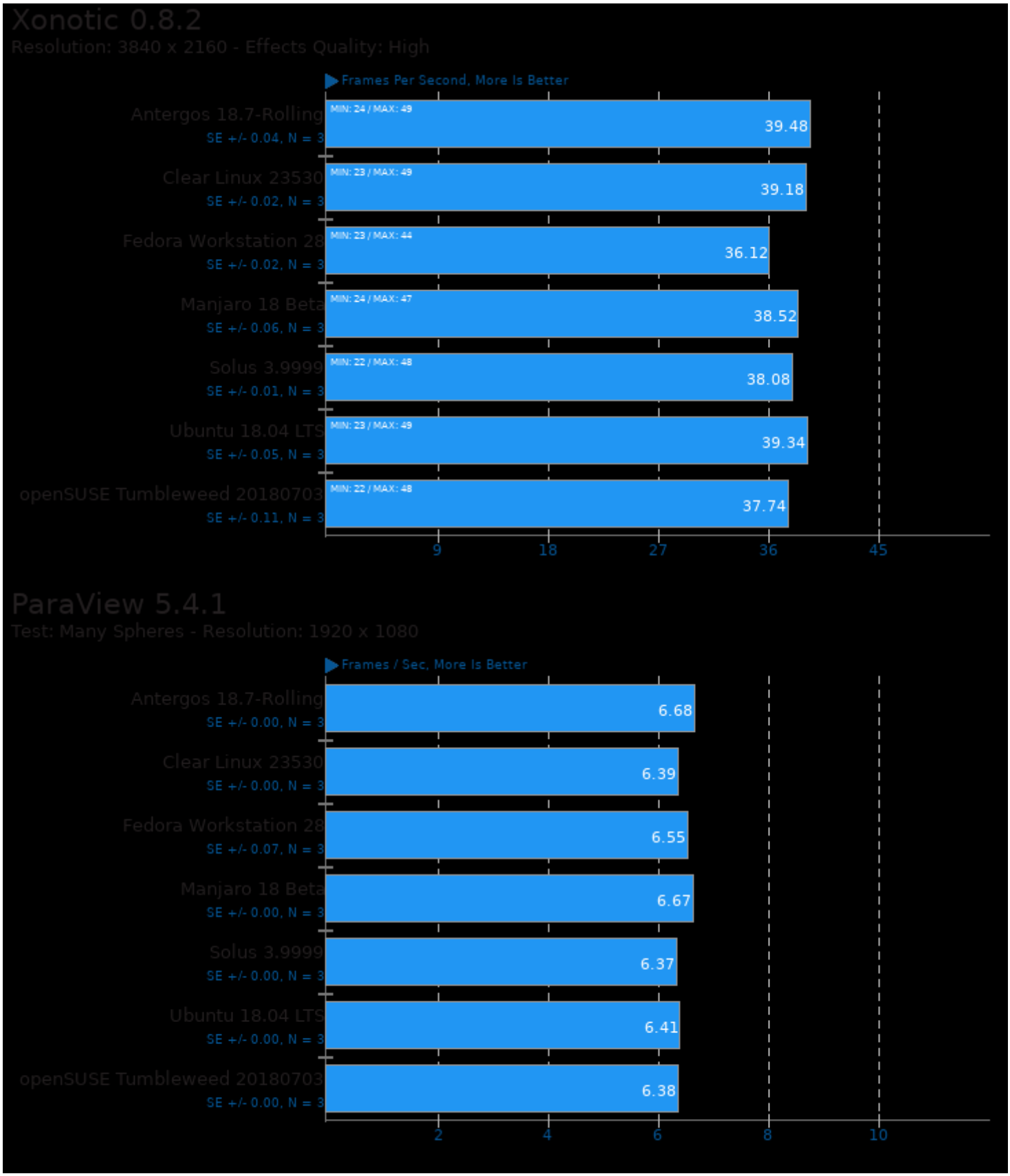

FS-Mark 3.3
Test: 5000 Files, 1MB Size, 4 Threads
Files/s, More Is Better
Antergos 18.7-Rolling
SE +/- 5.13, N = 3
394.53
Clear Linux 23530
SE +/- 6.18, N = 3
537.77
Debian 9.4
SE +/- 2.15, N = 3
429.07
Debian Buster Testing
SE +/- 0.27, N = 3
421.07
Fedora Workstation 28
SE +/- 2.34, N = 3
423.47
Manjaro 18 Beta
SE +/- 2.82, N = 3
403.07
Solus 3.9999
SE +/- 4.24, N = 3
407.20
Ubuntu 18.04 LTS
SE +/- 0.93, N = 3
419.87
120
240
360
480
600
1. (CC) gcc options: -static

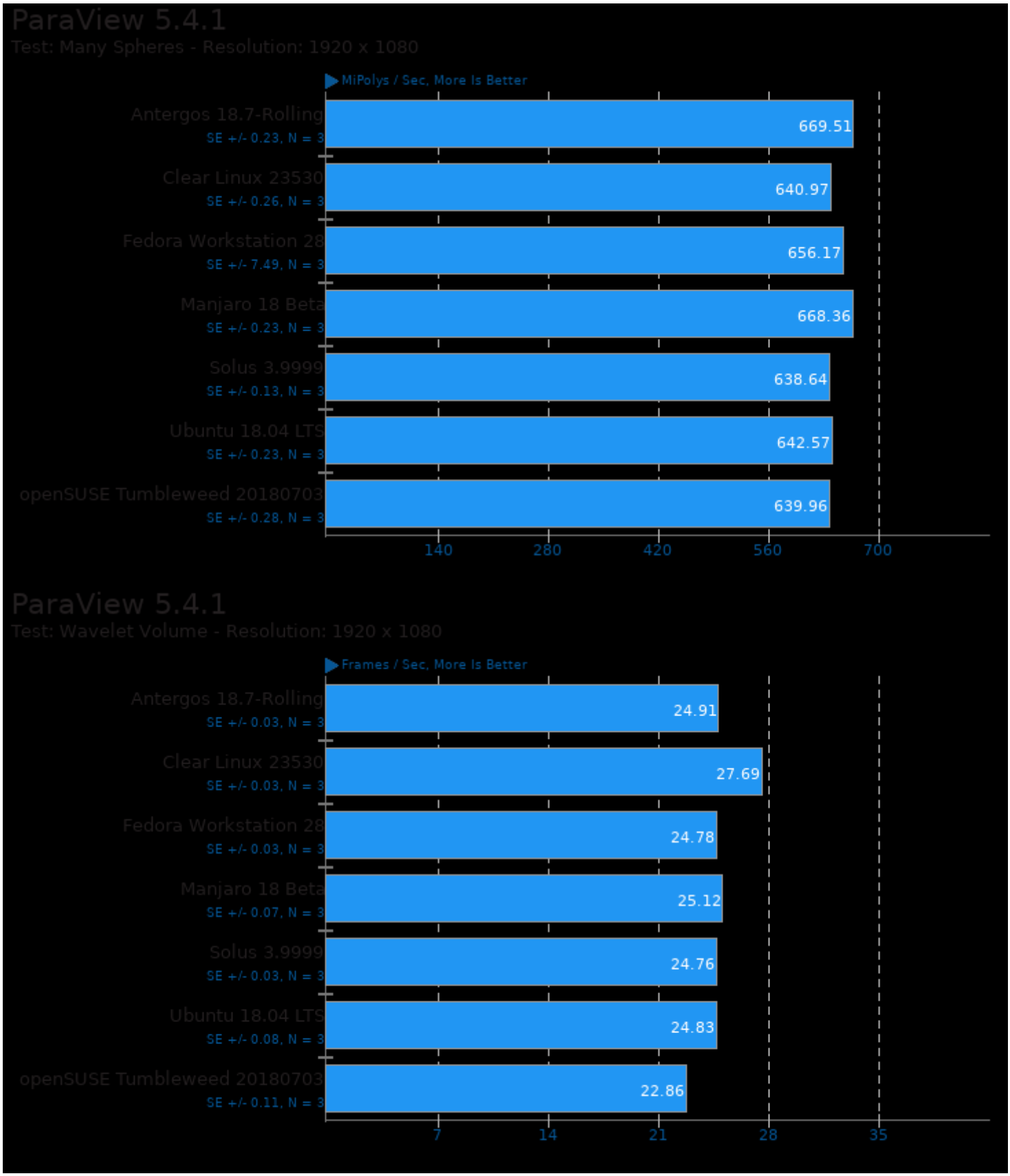

FS-Mark 3.3
Test: 4000 Files, 32 Sub Dirs, 1MB Size
Files/s, More Is Better
Antergos 18.7-Rolling
SE +/- 3.83, N = 3
267.87
Clear Linux 23530
SE +/- 4.29, N = 3
423.57
Debian 9.4
SE +/- 14.76, N = 6
340.42
Debian Buster Testing
SE +/- 3.93, N = 3
269.73
Fedora Workstation 28
SE +/- 9.40, N = 6
246.67
Manjaro 18 Beta
SE +/- 3.99, N = 5
265.26
Solus 3.9999
SE +/- 5.91, N = 6
279.25
Ubuntu 18.04 LTS
SE +/- 0.99, N = 3
269.73
90
180
270
360
450
1. (CC) gcc options: -static

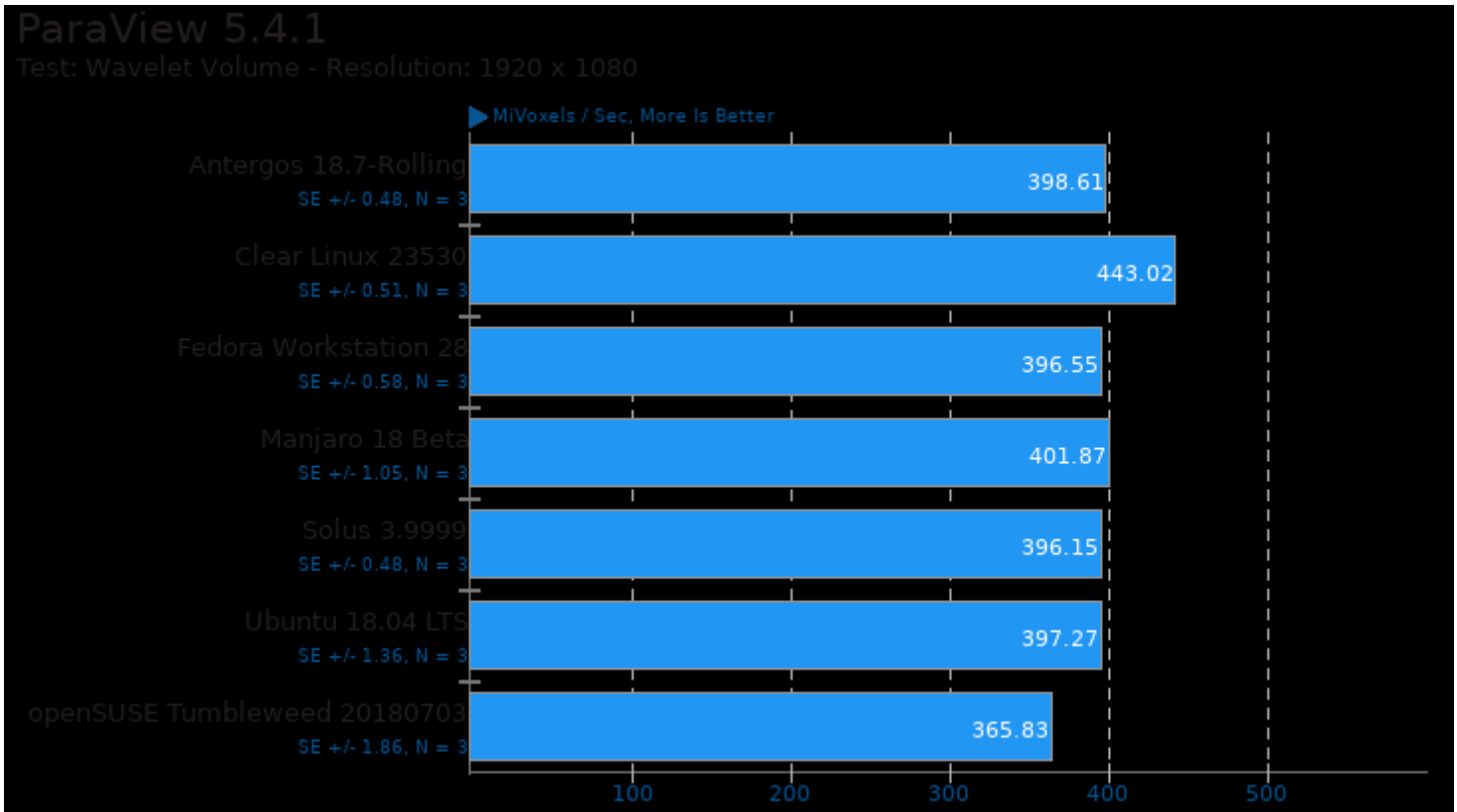

ET: Legacy 2.75
Renderer: Renderer2 - Resolution: 3840 x 2160
Frames Per Second, More Is Better
Antergos 18.7-Rolling
SE +/- 0.12, N = 3
35.67
Clear Linux 23530
SE +/- 0.09, N = 3
35.93
Fedora Workstation 28
SE +/- 0.03, N = 3
33.07
Manjaro 18 Beta
SE +/- 0.09, N = 3
34.83
Solus 3.9999
SE +/- 0.03, N = 3
34.97
Ubuntu 18.04 LTS
SE +/- 0.03, N = 3
35.23
openSUSE Tumbleweed 20180703
SE +/- 0.03, N = 3
34.43
8
16
24
32
40
OpenArena 0.8.8
Resolution: 1920 x 1080
Frames Per Second, More Is Better
Antergos 18.7-Rolling
SE +/- 0.12, N = 3
MIN: 2
88.87
Clear Linux 23530
SE +/- 0.12, N = 3
MIN: 1
87.30
Fedora Workstation 28
SE +/- 0.09, N = 3
MIN: 3
52.77
Manjaro 18 Beta
SE +/- 1.42, N = 6
MIN: 2
82.90
Solus 3.9999
SE +/- 0.12, N = 3
MIN: 2
84.20
Ubuntu 18.04 LTS
SE +/- 0.21, N = 3
MIN: 3
86.80
openSUSE Tumbleweed 20180703
SE +/- 0.07, N = 3
MIN: 3
69.53
20
40
60
80
100

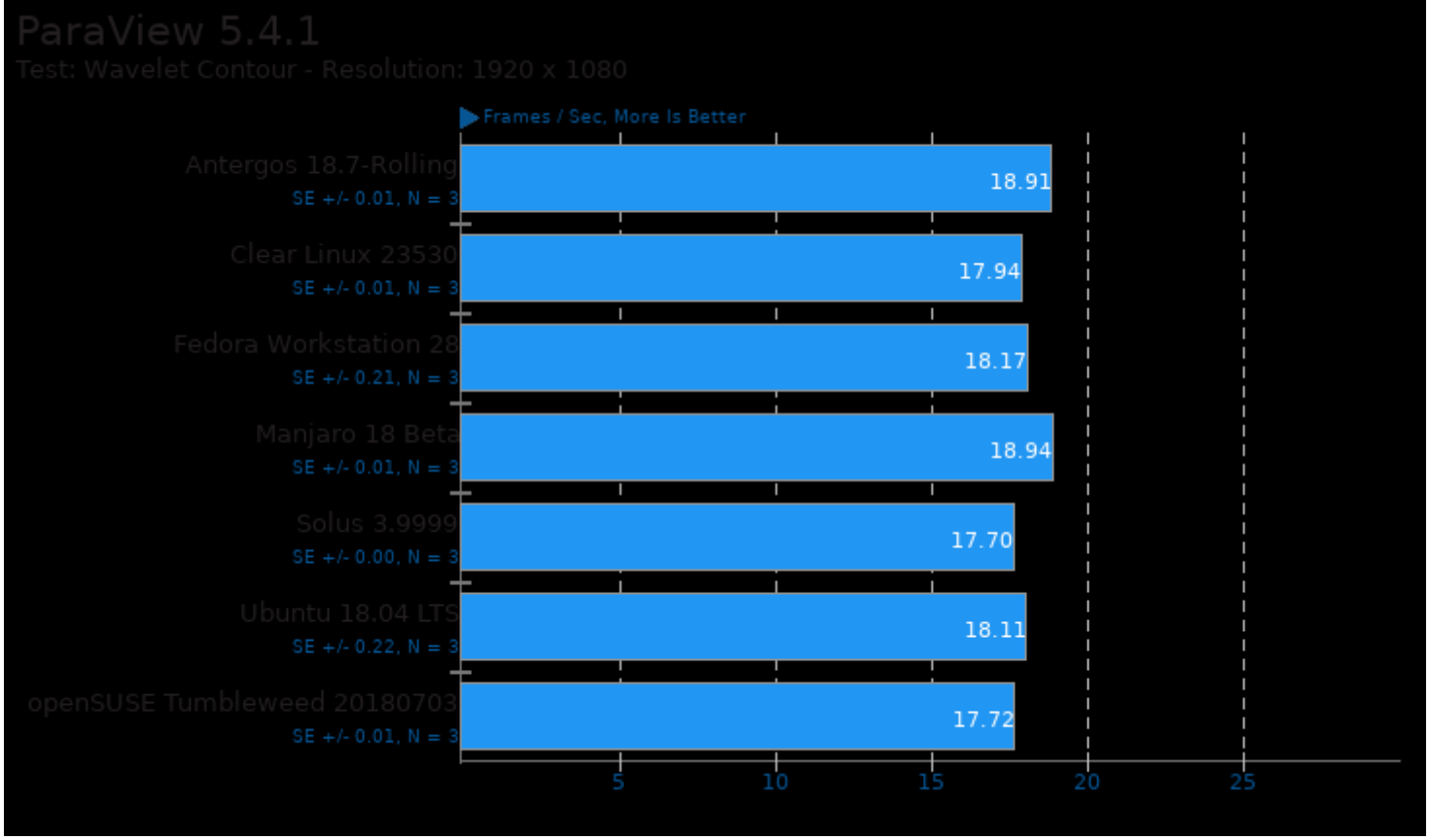

OpenArena 0.8.8
Resolution: 1920 x 1080 - Total Frame Time
Milliseconds, Fewer Is Better
Antergos 18.7-Rolling
Min: 2 / Avg: 11.15 / Max: 25
Clear Linux 23530
Min: 1 / Avg: 11.42 / Max: 26
Fedora Workstation 28
Min: 2 / Avg: 18.86 / Max: 44
Manjaro 18 Beta
Min: 1 / Avg: 12.21 / Max: 27
Solus 3.9999
Min: 2 / Avg: 11.78 / Max: 28
Ubuntu 18.04 LTS
Min: 1 / Avg: 11.39 / Max: 34
openSUSE Tumbleweed 20180703
Min: 2 / Avg: 14.29 / Max: 33
9
18
27
36
45
Tesseract 2014-05-12
Resolution: 1920 x 1080
Frames Per Second, More Is Better
Antergos 18.7-Rolling
SE +/- 0.14, N = 3
55.63
Clear Linux 23530
SE +/- 0.14, N = 3
56.84
Fedora Workstation 28
SE +/- 0.10, N = 3
44.01
Manjaro 18 Beta
SE +/- 0.09, N = 3
49.96
Solus 3.9999
SE +/- 0.05, N = 3
54.53
Ubuntu 18.04 LTS
SE +/- 0.35, N = 3
54.19
13
26
39
52
65

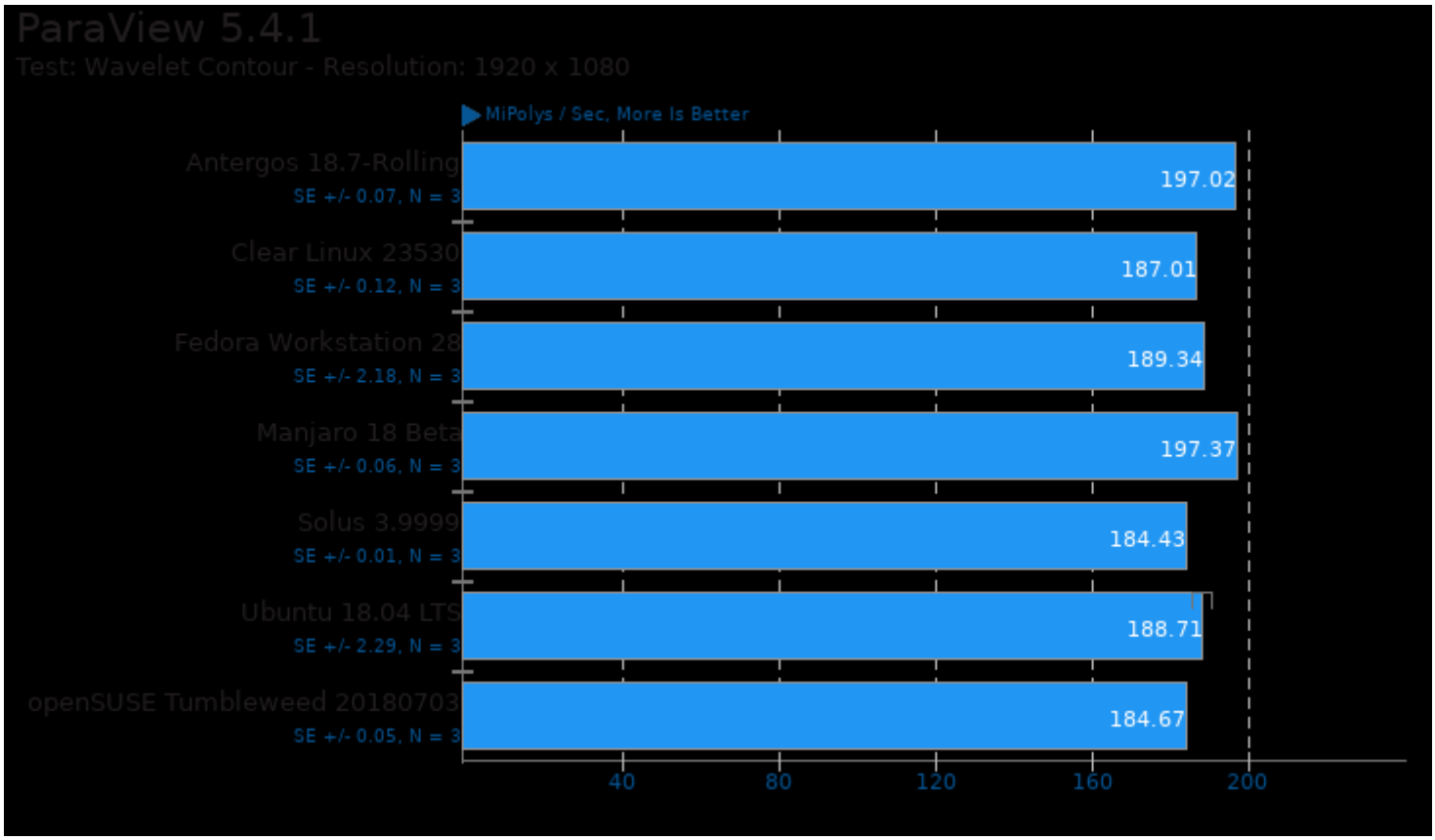

Tesseract 2014-05-12
Resolution: 3840 x 2160
Frames Per Second, More Is Better
Antergos 18.7-Rolling
SE +/- 0.25, N = 3
23.21
Clear Linux 23530
SE +/- 0.05, N = 3
22.69
Fedora Workstation 28
SE +/- 0.05, N = 3
20.97
Manjaro 18 Beta
SE +/- 0.04, N = 3
22.31
Solus 3.9999
SE +/- 0.11, N = 3
22.94
Ubuntu 18.04 LTS
SE +/- 0.07, N = 3
23.07
6
12
18
24
30
Xonotic 0.8.2
Resolution: 3840 x 2160 - Effects Quality: Low
Frames Per Second, More Is Better
Antergos 18.7-Rolling
SE +/- 0.06, N = 3
MIN: 54 / MAX: 114
83.22
Clear Linux 23530
SE +/- 0.05, N = 3
MIN: 54 / MAX: 114
83.27
Fedora Workstation 28
SE +/- 0.17, N = 3
MIN: 48 / MAX: 97
71.13
Manjaro 18 Beta
SE +/- 0.17, N = 3
MIN: 51 / MAX: 107
78.28
Solus 3.9999
SE +/- 0.09, N = 3
MIN: 51 / MAX: 104
78.31
Ubuntu 18.04 LTS
SE +/- 0.06, N = 3
MIN: 52 / MAX: 109
81.10
openSUSE Tumbleweed 20180703
SE +/- 0.12, N = 3
MIN: 50 / MAX: 103
77.50
20
40
60
80
100

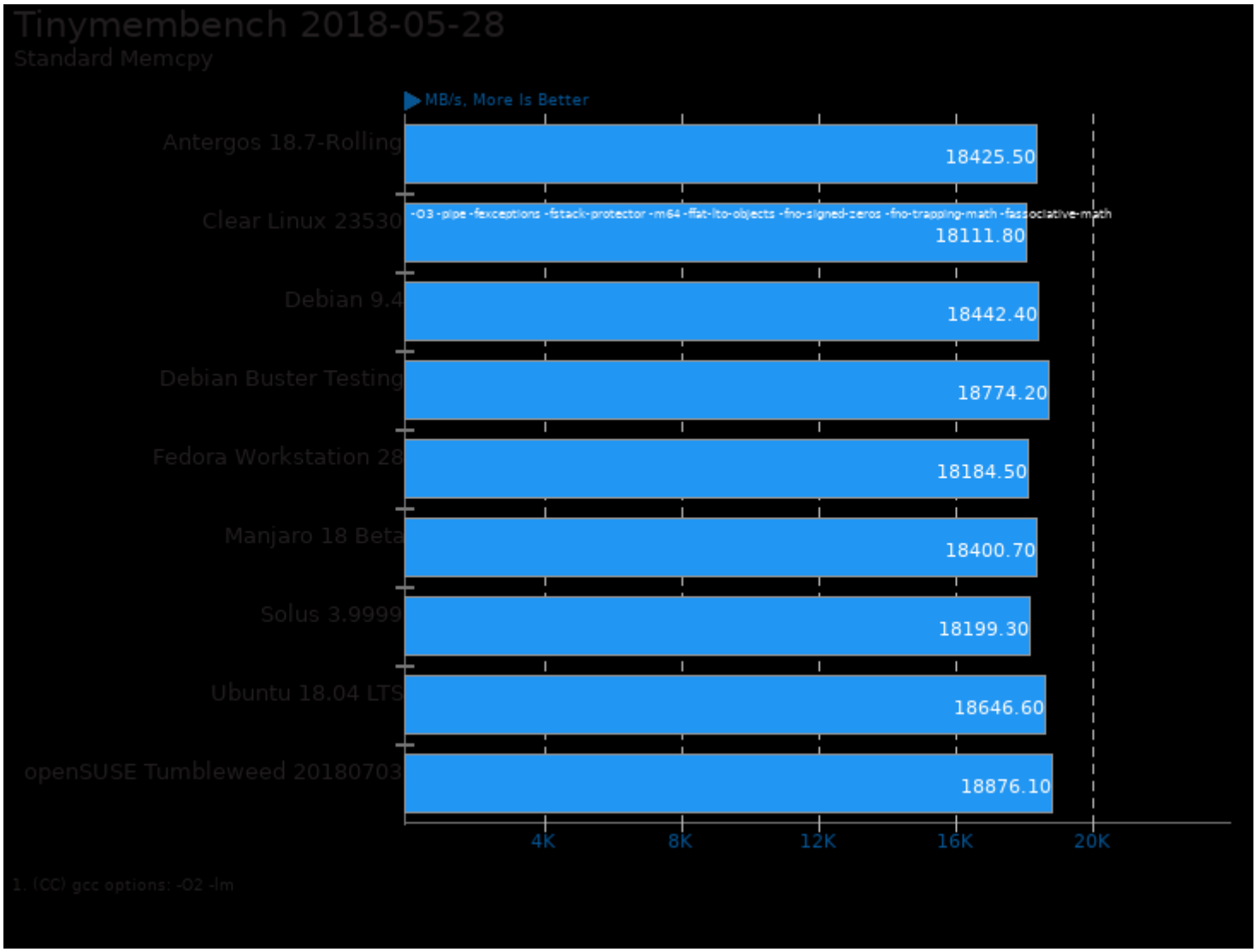

Xonotic 0.8.2
Resolution: 3840 x 2160 - Effects Quality: High
Frames Per Second, More Is Better
Antergos 18.7-Rolling
SE +/- 0.04, N = 3
MIN: 24 / MAX: 49
39.48
Clear Linux 23530
SE +/- 0.02, N = 3
MIN: 23 / MAX: 49
39.18
Fedora Workstation 28
SE +/- 0.02, N = 3
MIN: 23 / MAX: 44
36.12
Manjaro 18 Beta
SE +/- 0.06, N = 3
MIN: 24 / MAX: 47
38.52
Solus 3.9999
SE +/- 0.01, N = 3
MIN: 22 / MAX: 48
38.08
Ubuntu 18.04 LTS
SE +/- 0.05, N = 3
MIN: 23 / MAX: 49
39.34
openSUSE Tumbleweed 20180703
SE +/- 0.11, N = 3
MIN: 22 / MAX: 48
37.74
9
18
27
36
45
ParaView 5.4.1
Test: Many Spheres - Resolution: 1920 x 1080
Frames / Sec, More Is Better
Antergos 18.7-Rolling
SE +/- 0.00, N = 3
6.68
Clear Linux 23530
SE +/- 0.00, N = 3
6.39
Fedora Workstation 28
SE +/- 0.07, N = 3
6.55
Manjaro 18 Beta
SE +/- 0.00, N = 3
6.67
Solus 3.9999
SE +/- 0.00, N = 3
6.37
Ubuntu 18.04 LTS
SE +/- 0.00, N = 3
6.41
openSUSE Tumbleweed 20180703
SE +/- 0.00, N = 3
6.38
2
4
6
8
10

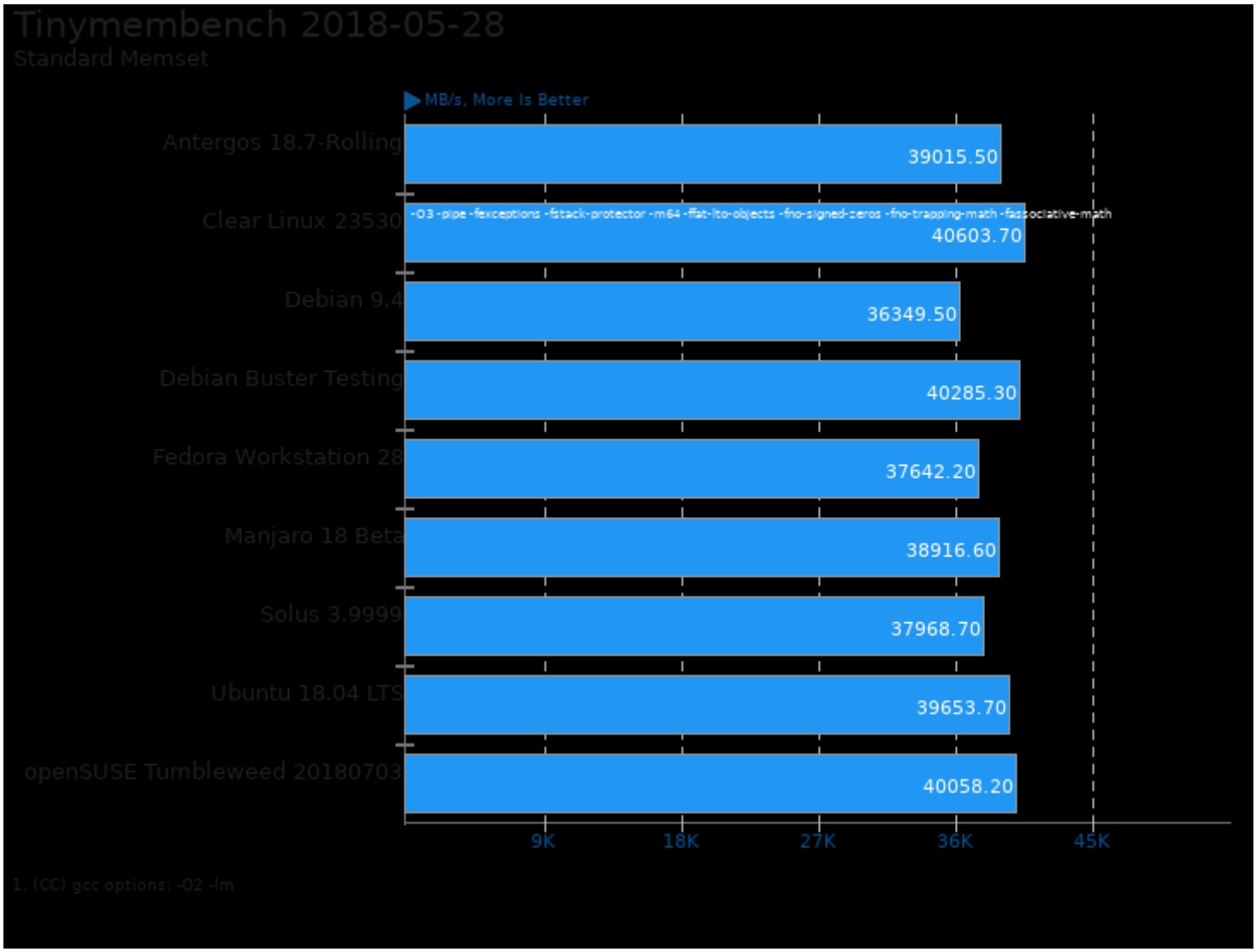

ParaView 5.4.1
Test: Many Spheres - Resolution: 1920 x 1080
MiPolys / Sec, More Is Better
Antergos 18.7-Rolling
SE +/- 0.23, N = 3
669.51
Clear Linux 23530
SE +/- 0.26, N = 3
640.97
Fedora Workstation 28
SE +/- 7.49, N = 3
656.17
Manjaro 18 Beta
SE +/- 0.23, N = 3
668.36
Solus 3.9999
SE +/- 0.13, N = 3
638.64
Ubuntu 18.04 LTS
SE +/- 0.23, N = 3
642.57
openSUSE Tumbleweed 20180703
SE +/- 0.28, N = 3
639.96
140
280
420
560
700
ParaView 5.4.1
Test: Wavelet Volume - Resolution: 1920 x 1080
Frames / Sec, More Is Better
Antergos 18.7-Rolling
SE +/- 0.03, N = 3
24.91
Clear Linux 23530
SE +/- 0.03, N = 3
27.69
Fedora Workstation 28
SE +/- 0.03, N = 3
24.78
Manjaro 18 Beta
SE +/- 0.07, N = 3
25.12
Solus 3.9999
SE +/- 0.03, N = 3
24.76
Ubuntu 18.04 LTS
SE +/- 0.08, N = 3
24.83
openSUSE Tumbleweed 20180703
SE +/- 0.11, N = 3
22.86
7
14
21
28
35

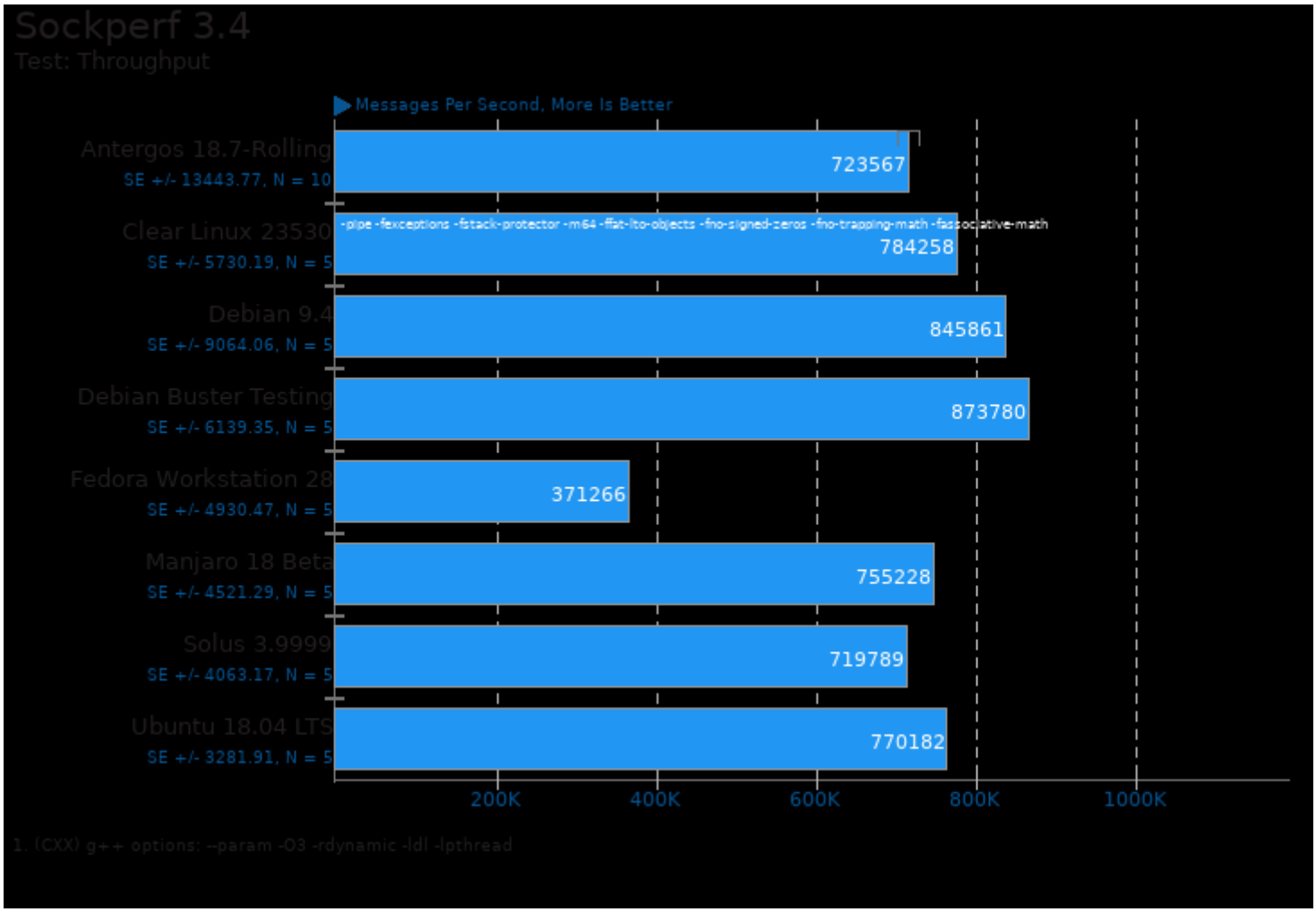

ParaView 5.4.1
Test: Wavelet Volume - Resolution: 1920 x 1080
MiVoxels / Sec, More Is Better
Antergos 18.7-Rolling
SE +/- 0.48, N = 3
398.61
Clear Linux 23530
SE +/- 0.51, N = 3
443.02
Fedora Workstation 28
SE +/- 0.58, N = 3
396.55
Manjaro 18 Beta
SE +/- 1.05, N = 3
401.87
Solus 3.9999
SE +/- 0.48, N = 3
396.15
Ubuntu 18.04 LTS
SE +/- 1.36, N = 3
397.27
openSUSE Tumbleweed 20180703
SE +/- 1.86, N = 3
365.83
100
200
300
400
500

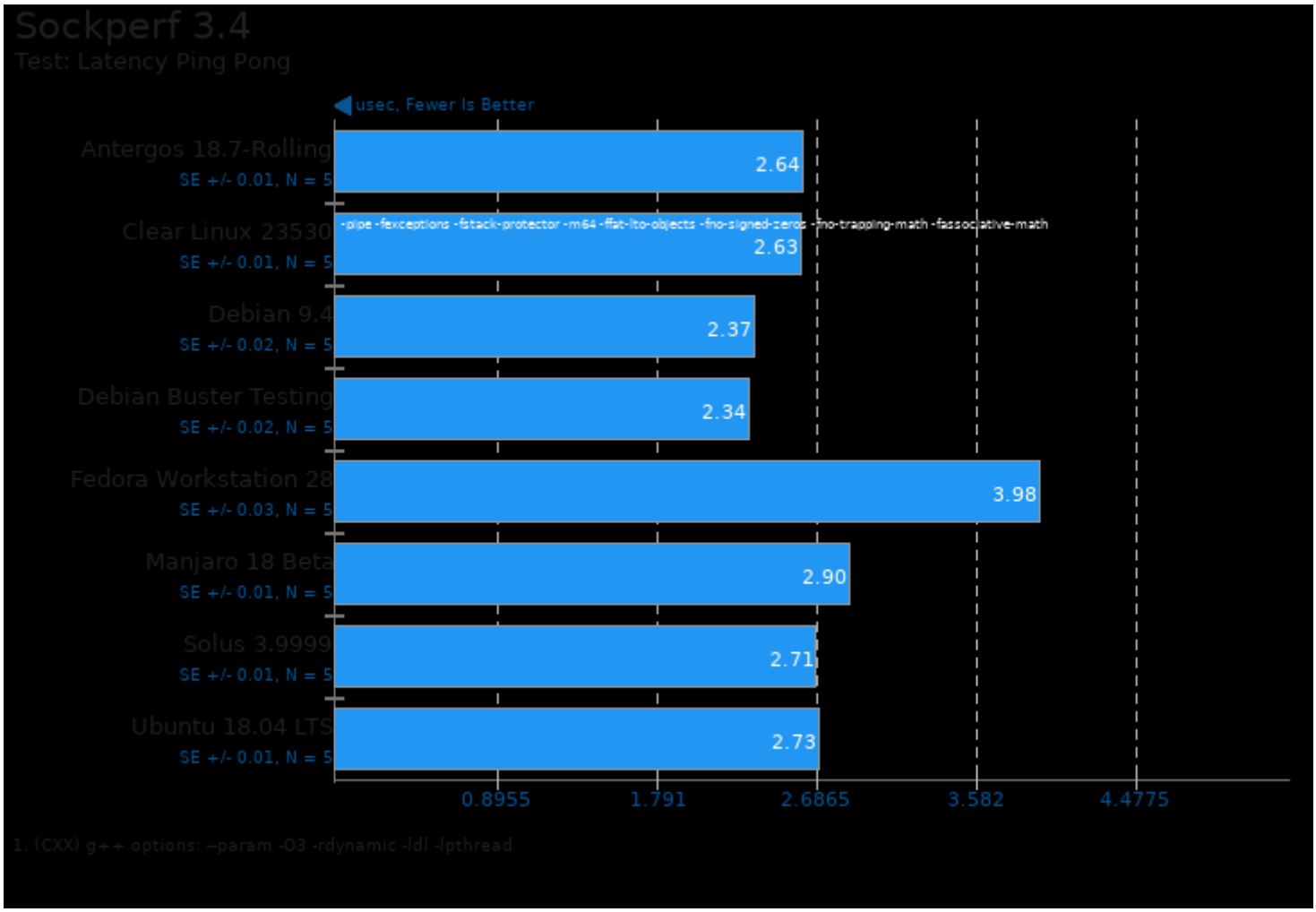

ParaView 5.4.1
Test: Wavelet Contour - Resolution: 1920 x 1080
Frames / Sec, More Is Better
Antergos 18.7-Rolling
SE +/- 0.01, N = 3
18.91
Clear Linux 23530
SE +/- 0.01, N = 3
17.94
Fedora Workstation 28
SE +/- 0.21, N = 3
18.17
Manjaro 18 Beta
SE +/- 0.01, N = 3
18.94
Solus 3.9999
SE +/- 0.00, N = 3
17.70
Ubuntu 18.04 LTS
SE +/- 0.22, N = 3
18.11
openSUSE Tumbleweed 20180703
SE +/- 0.01, N = 3
17.72
5
10
15
20
25

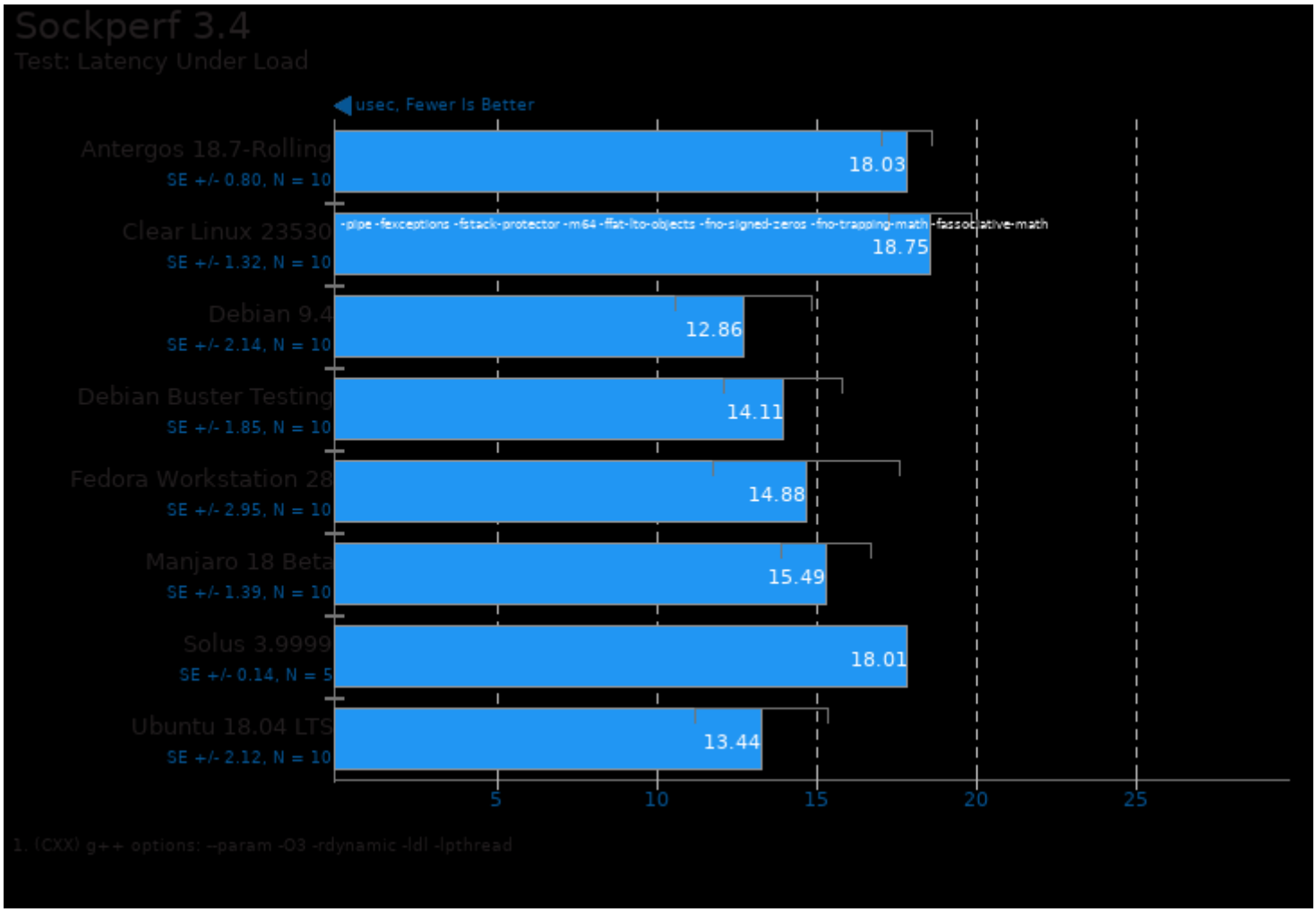

ParaView 5.4.1
Test: Wavelet Contour - Resolution: 1920 x 1080
MiPolys / Sec, More Is Better
Antergos 18.7-Rolling
SE +/- 0.07, N = 3
197.02
Clear Linux 23530
SE +/- 0.12, N = 3
187.01
Fedora Workstation 28
SE +/- 2.18, N = 3
189.34
Manjaro 18 Beta
SE +/- 0.06, N = 3
197.37
Solus 3.9999
SE +/- 0.01, N = 3
184.43
Ubuntu 18.04 LTS
SE +/- 2.29, N = 3
188.71
openSUSE Tumbleweed 20180703
SE +/- 0.05, N = 3
184.67
40
80
120
160
200

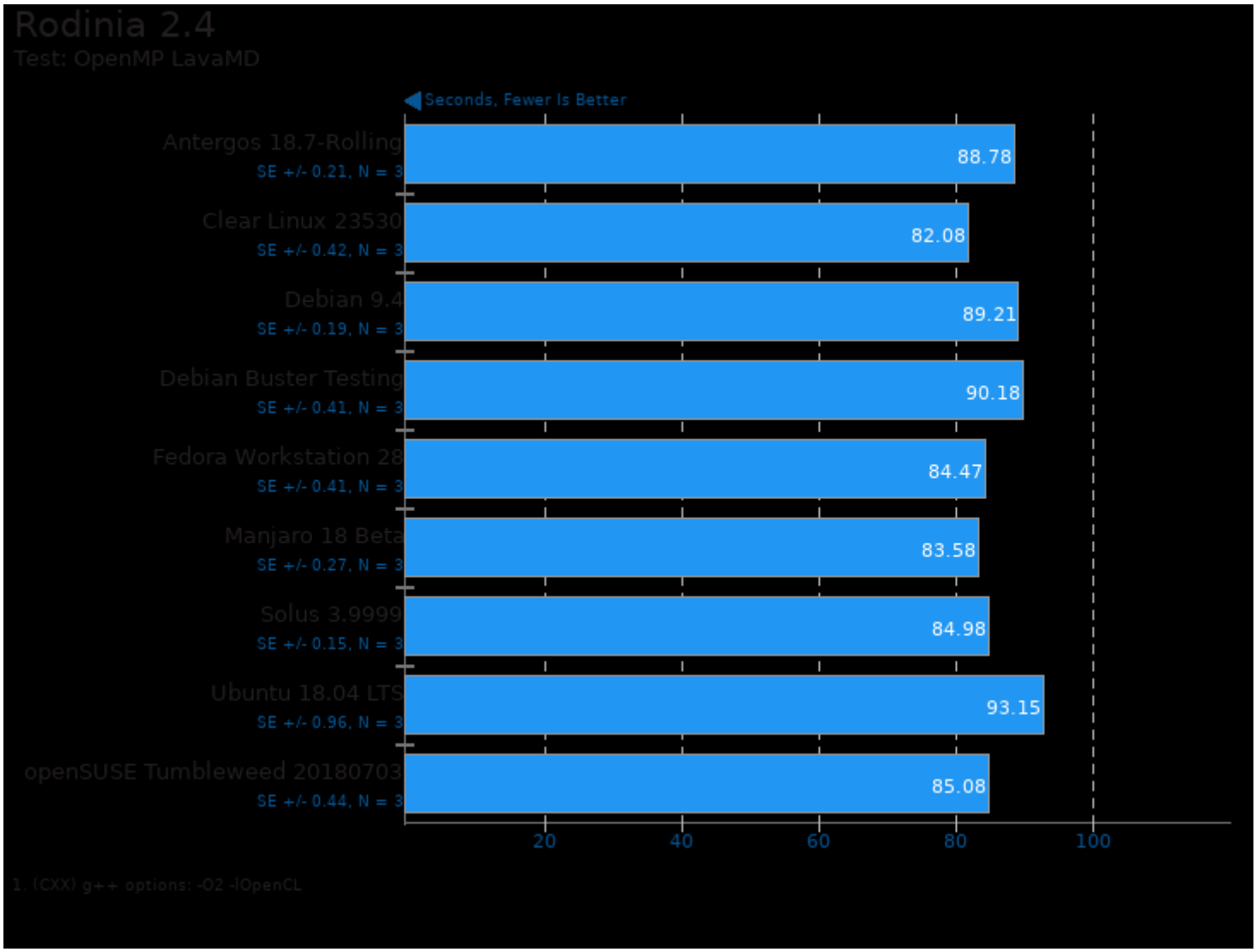

Tinymembench 2018-05-28
Standard Memcpy
MB/s, More Is Better
Antergos 18.7-Rolling
18425.50
Clear Linux 23530
-O3 -pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math
18111.80
Debian 9.4
18442.40
Debian Buster Testing
18774.20
Fedora Workstation 28
18184.50
Manjaro 18 Beta
18400.70
Solus 3.9999
18199.30
Ubuntu 18.04 LTS
18646.60
openSUSE Tumbleweed 20180703
18876.10
4K
8K
12K
16K
20K
1. (CC) gcc options: -O2 -lm

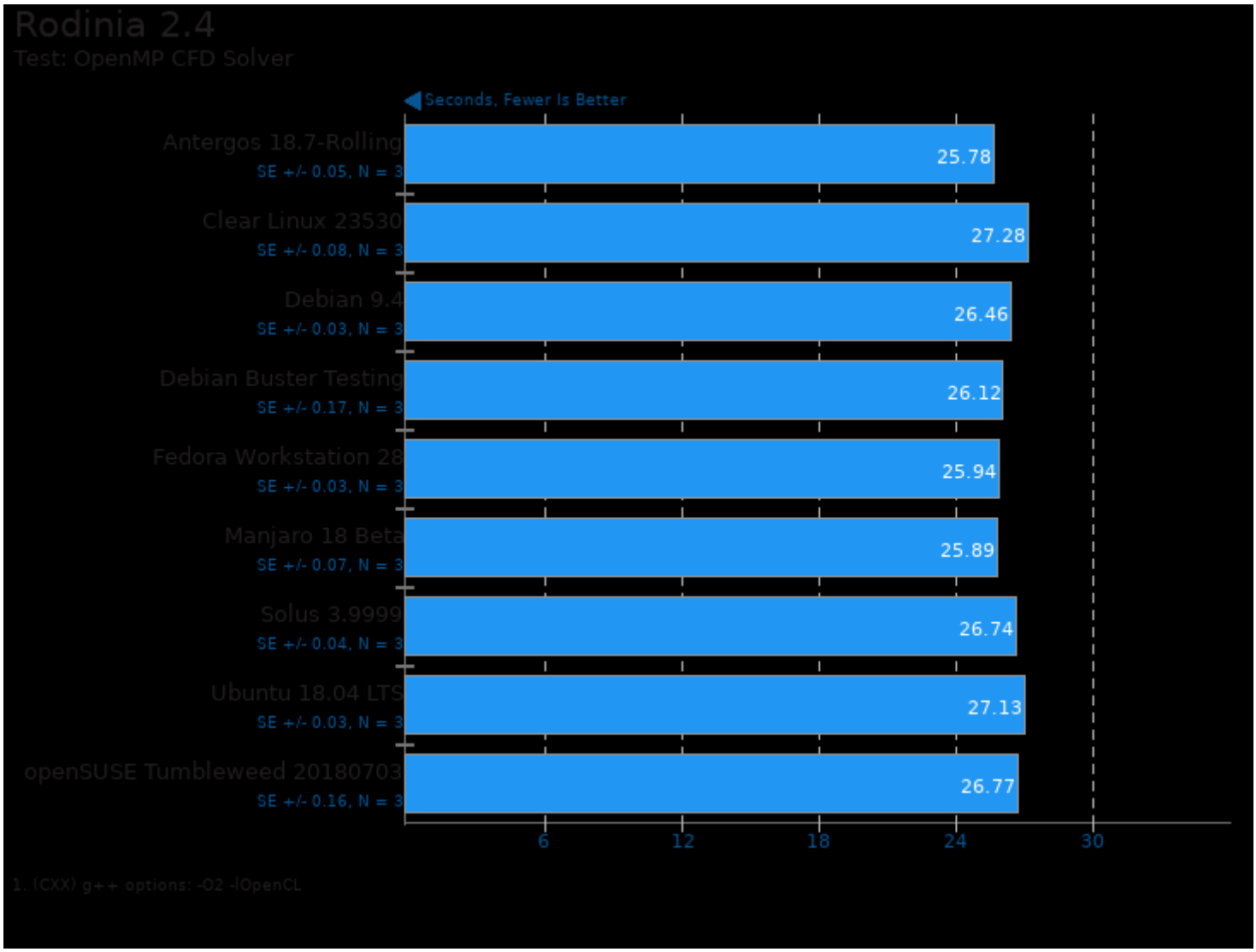

Tinymembench 2018-05-28
Standard Memset
MB/s, More Is Better
Antergos 18.7-Rolling
39015.50
Clear Linux 23530
-O3 -pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math
40603.70
Debian 9.4
36349.50
Debian Buster Testing
40285.30
Fedora Workstation 28
37642.20
Manjaro 18 Beta
38916.60
Solus 3.9999
37968.70
Ubuntu 18.04 LTS
39653.70
openSUSE Tumbleweed 20180703
40058.20
9K
18K
27K
36K
45K
1. (CC) gcc options: -O2 -lm

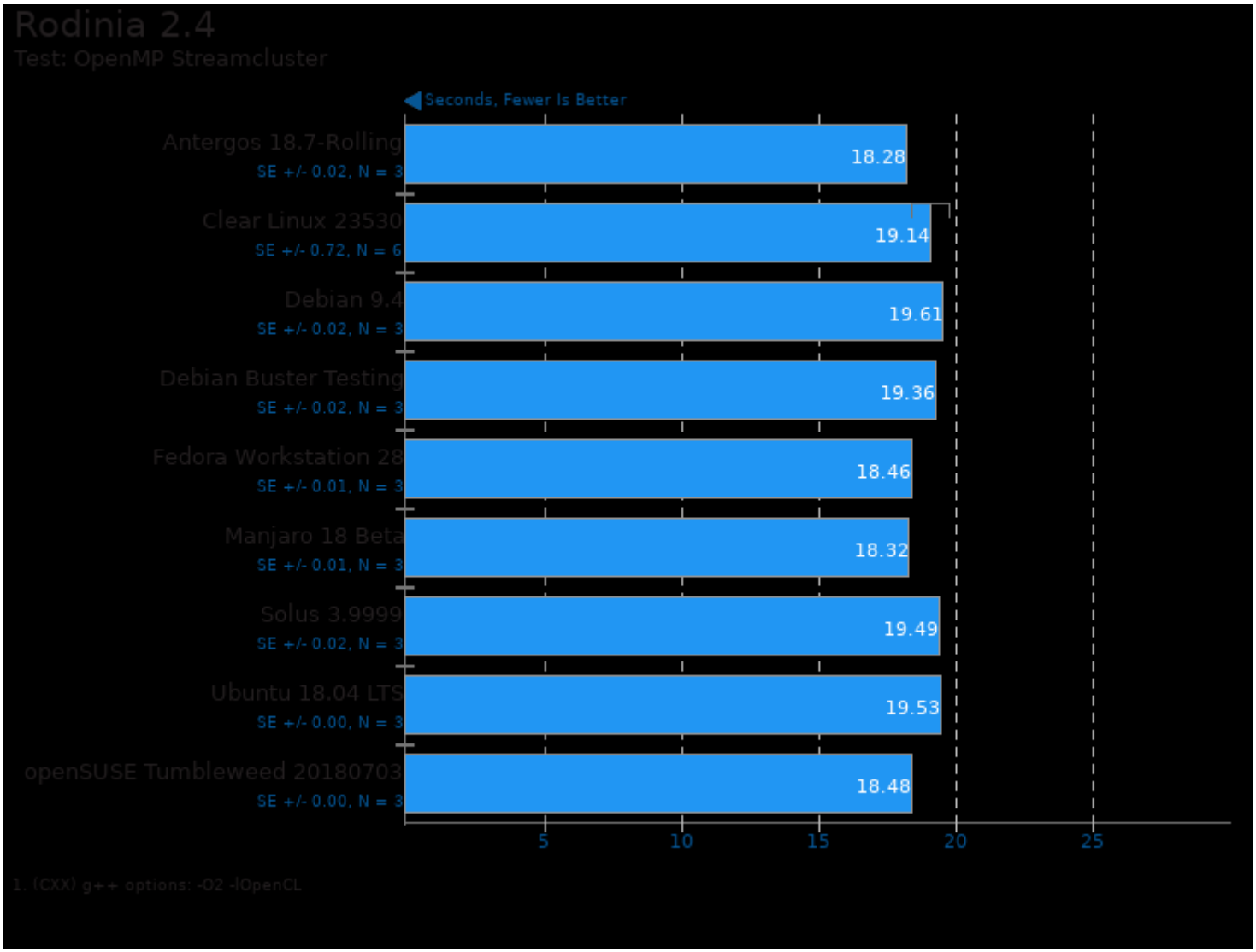

Sockperf 3.4
Test: Throughput
Messages Per Second, More Is Better
Antergos 18.7-Rolling
SE +/- 13443.77, N = 10
723567
Clear Linux 23530
SE +/- 5730.19, N = 5
-pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math
784258
Debian 9.4
SE +/- 9064.06, N = 5
845861
Debian Buster Testing
SE +/- 6139.35, N = 5
873780
Fedora Workstation 28
SE +/- 4930.47, N = 5
371266
Manjaro 18 Beta
SE +/- 4521.29, N = 5
755228
Solus 3.9999
SE +/- 4063.17, N = 5
719789
Ubuntu 18.04 LTS
SE +/- 3281.91, N = 5
770182
200K
400K
600K
800K
1000K
1. (CXX) g++ options: -param -O3 -rdynamic -ldl -lpthread

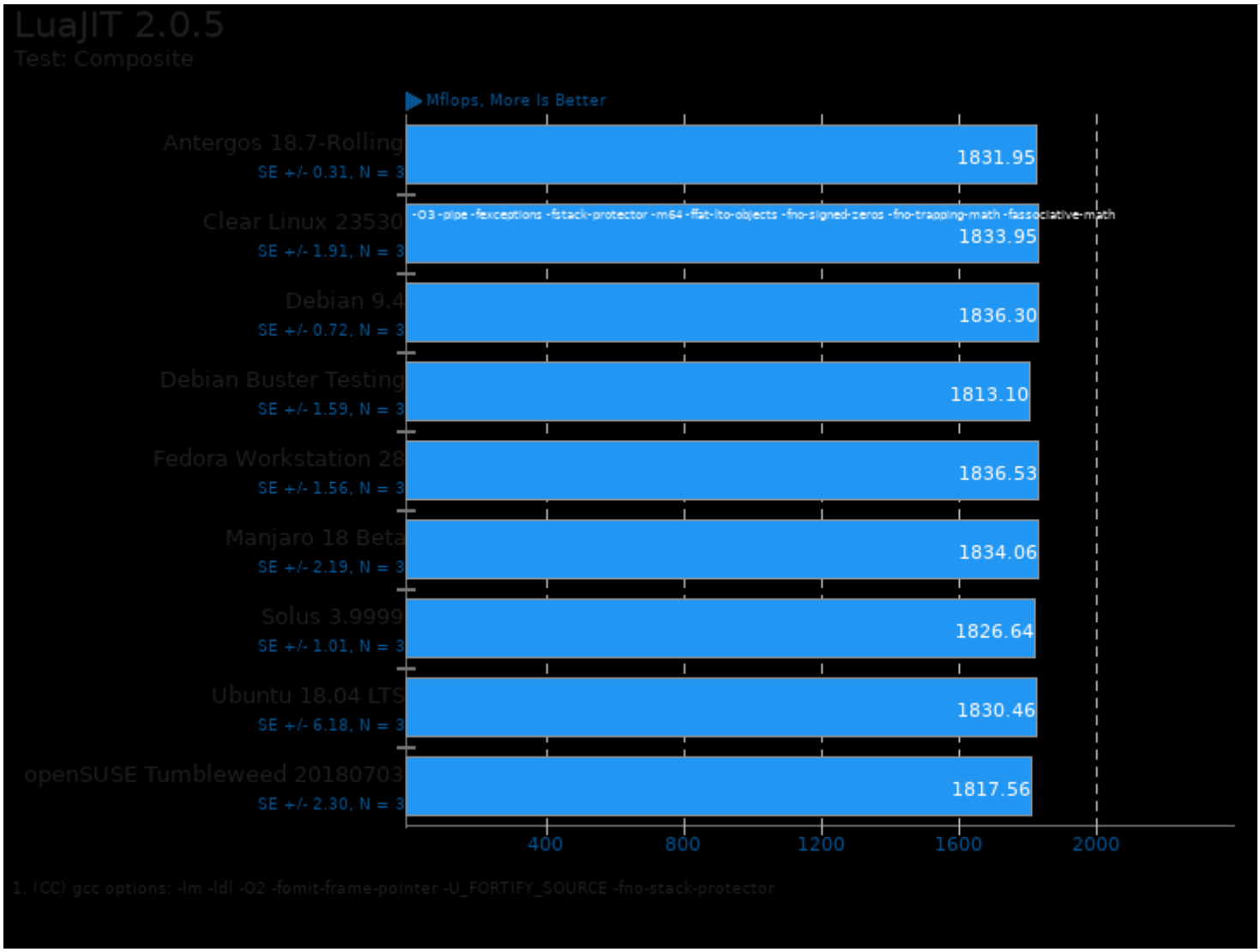

Sockperf 3.4
Test: Latency Ping Pong
usec, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.01, N = 5
2.64
Clear Linux 23530
SE +/- 0.01, N = 5
-pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math
2.63
Debian 9.4
SE +/- 0.02, N = 5
2.37
Debian Buster Testing
SE +/- 0.02, N = 5
2.34
Fedora Workstation 28
SE +/- 0.03, N = 5
3.98
Manjaro 18 Beta
SE +/- 0.01, N = 5
2.90
Solus 3.9999
SE +/- 0.01, N = 5
2.71
Ubuntu 18.04 LTS
SE +/- 0.01, N = 5
2.73
0.8955
1.791
2.6865
3.582
4.4775
1. (CXX) g++ options: -param -O3 -rdynamic -ldl -lpthread

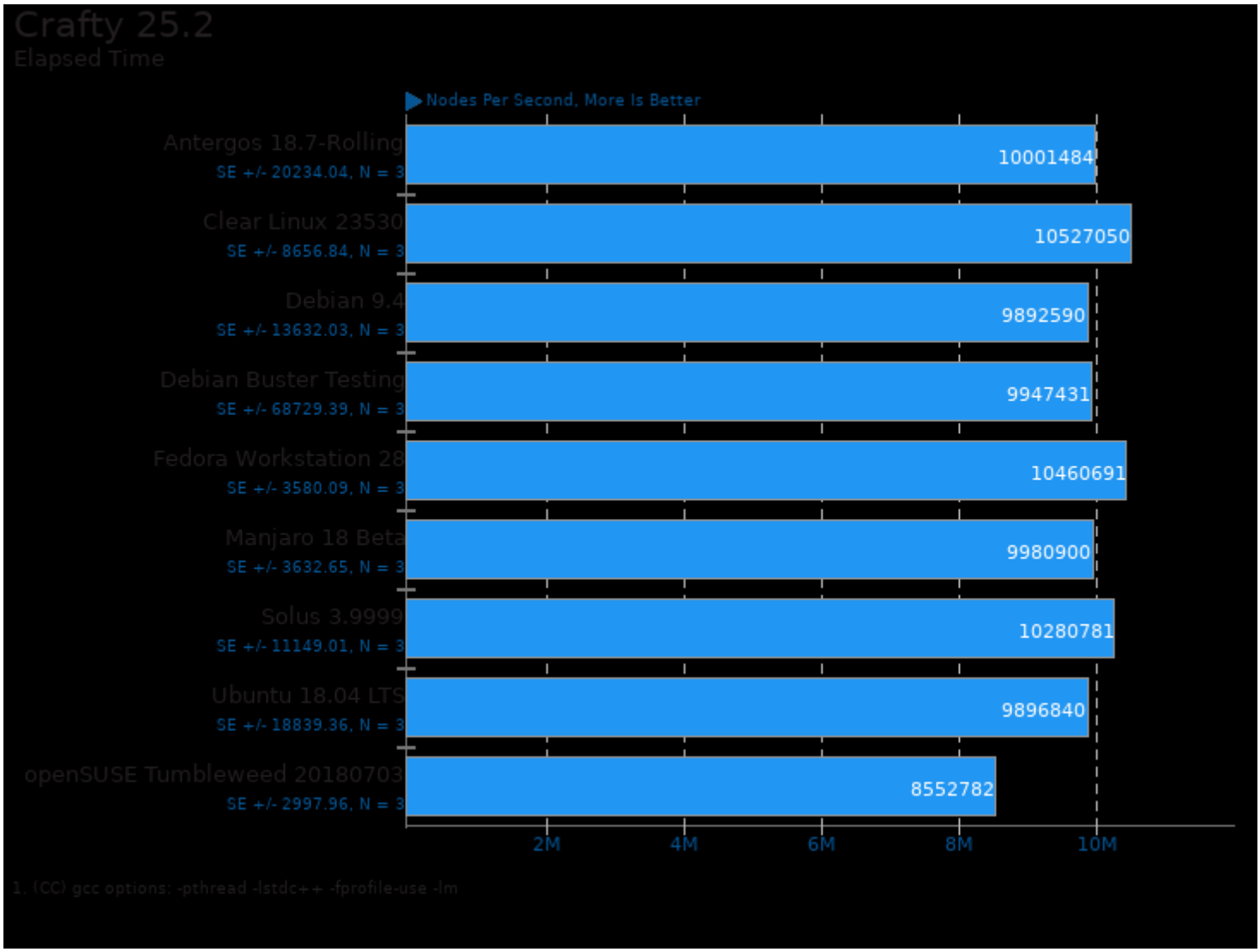

Sockperf 3.4
Test: Latency Under Load
usec, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.80, N = 10
18.03
Clear Linux 23530
SE +/- 1.32, N = 10
-pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math
18.75
Debian 9.4
SE +/- 2.14, N = 10
12.86
Debian Buster Testing
SE +/- 1.85, N = 10
14.11
Fedora Workstation 28
SE +/- 2.95, N = 10
14.88
Manjaro 18 Beta
SE +/- 1.39, N = 10
15.49
Solus 3.9999
SE +/- 0.14, N = 5
18.01
Ubuntu 18.04 LTS
SE +/- 2.12, N = 10
13.44
5
10
15
20
25
1. (CXX) g++ options: -param -O3 -rdynamic -ldl -lpthread

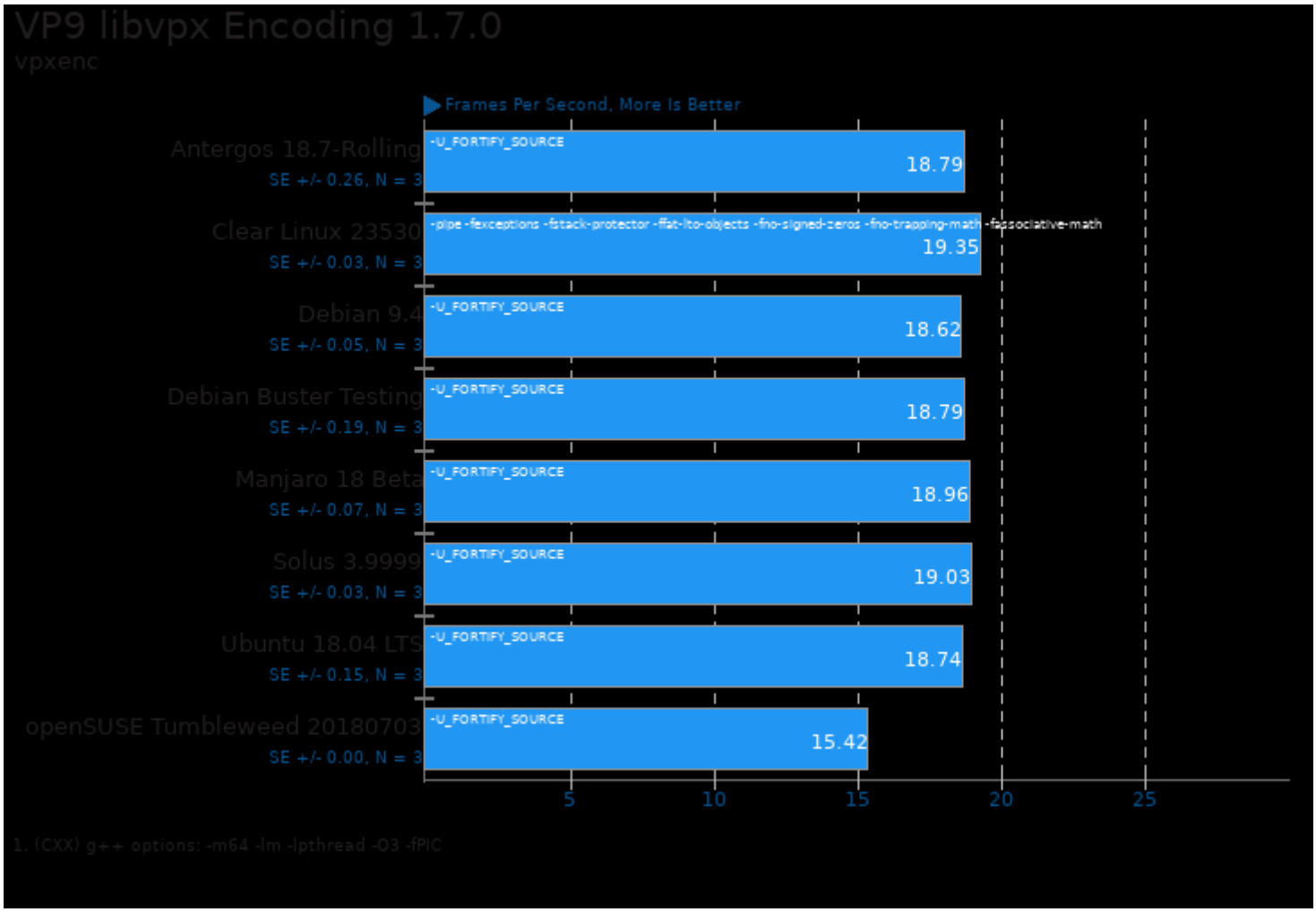

Rodinia 2.4
Test: OpenMP LavaMD
Seconds, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.21, N = 3
88.78
Clear Linux 23530
SE +/- 0.42, N = 3
82.08
Debian 9.4
SE +/- 0.19, N = 3
89.21
Debian Buster Testing
SE +/- 0.41, N = 3
90.18
Fedora Workstation 28
SE +/- 0.41, N = 3
84.47
Manjaro 18 Beta
SE +/- 0.27, N = 3
83.58
Solus 3.9999
SE +/- 0.15, N = 3
84.98
Ubuntu 18.04 LTS
SE +/- 0.96, N = 3
93.15
openSUSE Tumbleweed 20180703
SE +/- 0.44, N = 3
85.08
20
40
60
80
100
1. (CXX) g++ options: -O2 -lOpenCL

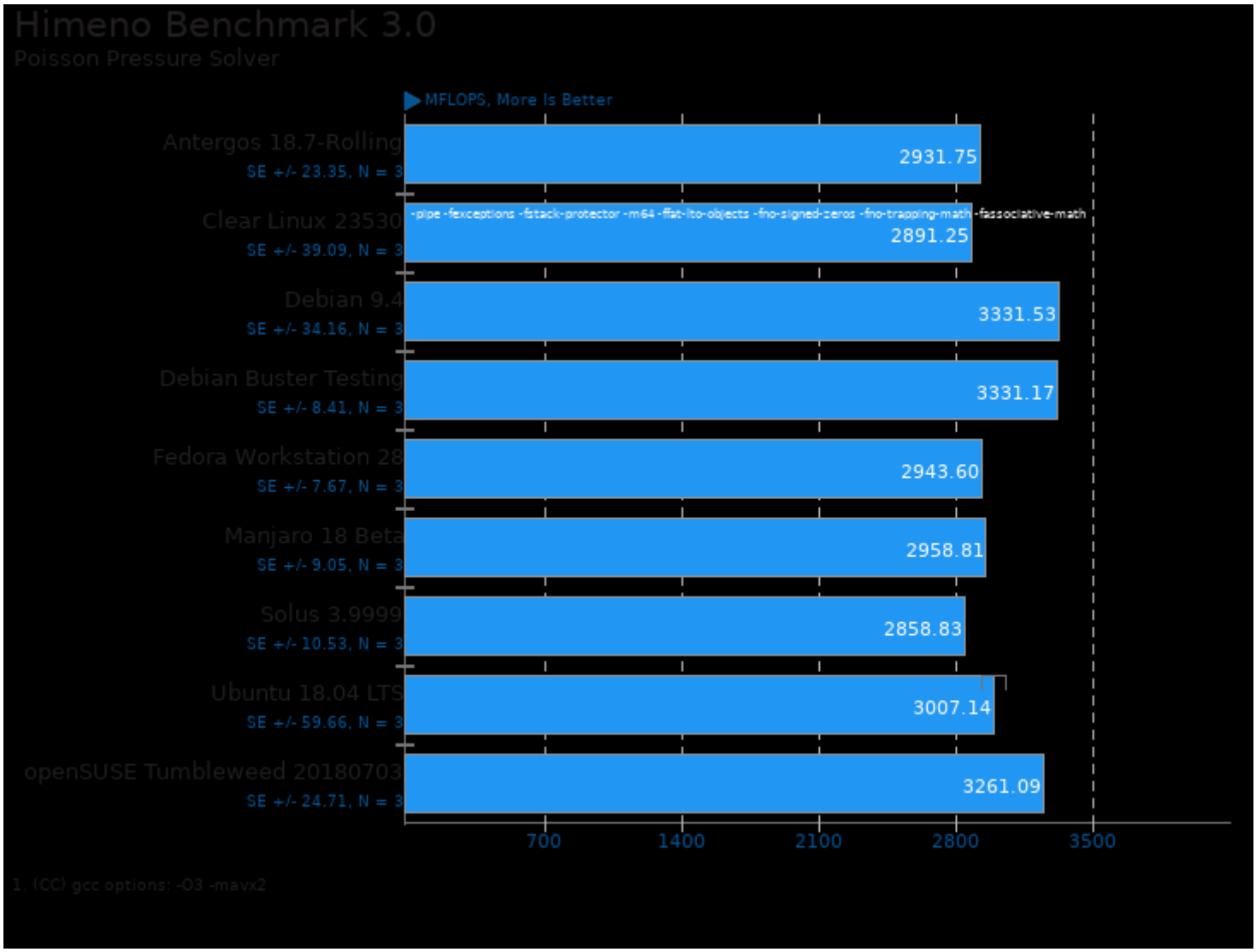

Rodinia 2.4
Test: OpenMP CFD Solver
Seconds, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.05, N = 3
25.78
Clear Linux 23530
SE +/- 0.08, N = 3
27.28
Debian 9.4
SE +/- 0.03, N = 3
26.46
Debian Buster Testing
SE +/- 0.17, N = 3
26.12
Fedora Workstation 28
SE +/- 0.03, N = 3
25.94
Manjaro 18 Beta
SE +/- 0.07, N = 3
25.89
Solus 3.9999
SE +/- 0.04, N = 3
26.74
Ubuntu 18.04 LTS
SE +/- 0.03, N = 3
27.13
openSUSE Tumbleweed 20180703
SE +/- 0.16, N = 3
26.77
6
12
18
24
30
1. (CXX) g++ options: -O2 -lOpenCL

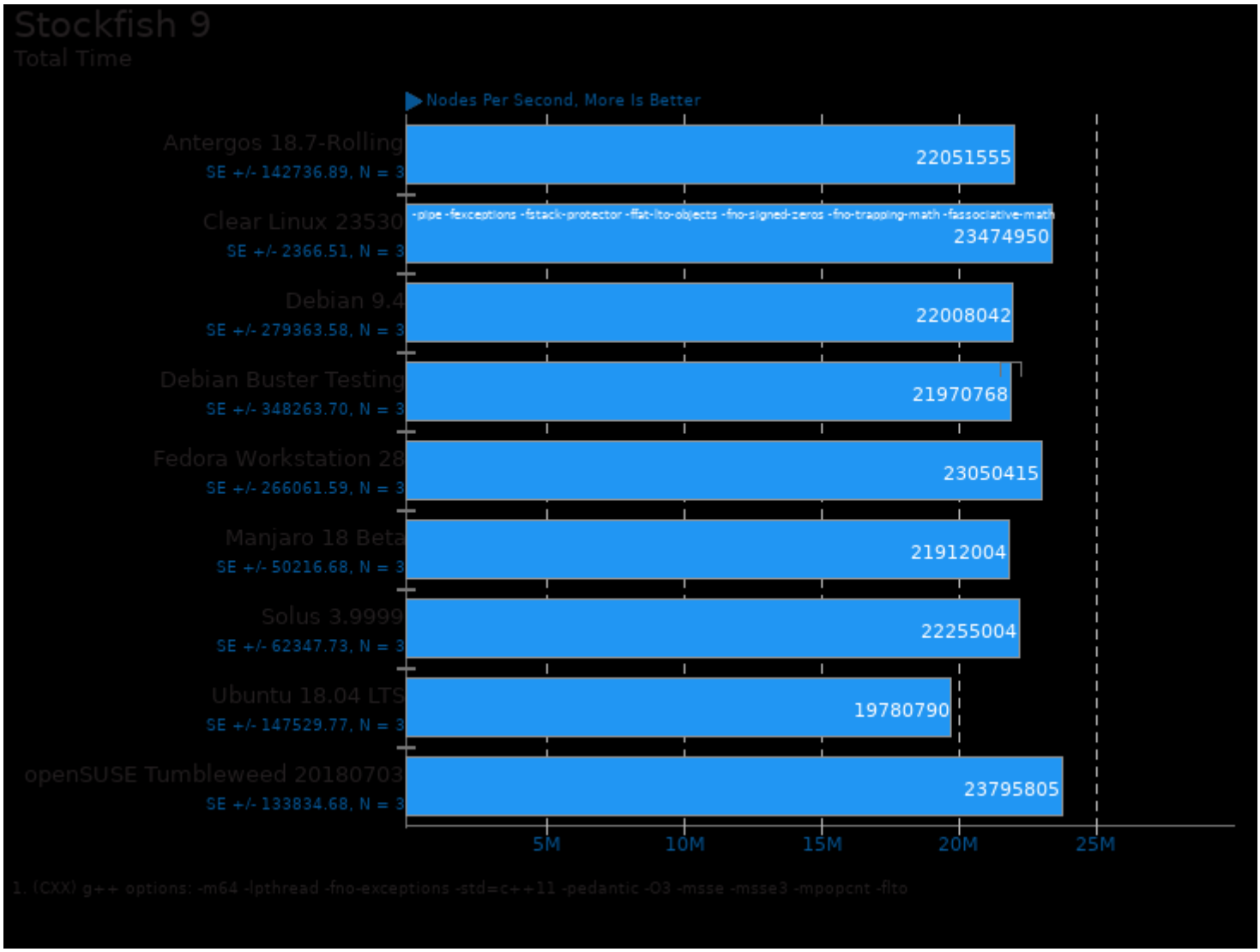

Rodinia 2.4
Test: OpenMP Streamcluster
Seconds, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.02, N = 3
18.28
Clear Linux 23530
SE +/- 0.72, N = 6
19.14
Debian 9.4
SE +/- 0.02, N = 3
19.61
Debian Buster Testing
SE +/- 0.02, N = 3
19.36
Fedora Workstation 28
SE +/- 0.01, N = 3
18.46
Manjaro 18 Beta
SE +/- 0.01, N = 3
18.32
Solus 3.9999
SE +/- 0.02, N = 3
19.49
Ubuntu 18.04 LTS
SE +/- 0.00, N = 3
19.53
openSUSE Tumbleweed 20180703
SE +/- 0.00, N = 3
18.48
5
10
15
20
25
1. (CXX) g++ options: -O2 -lOpenCL

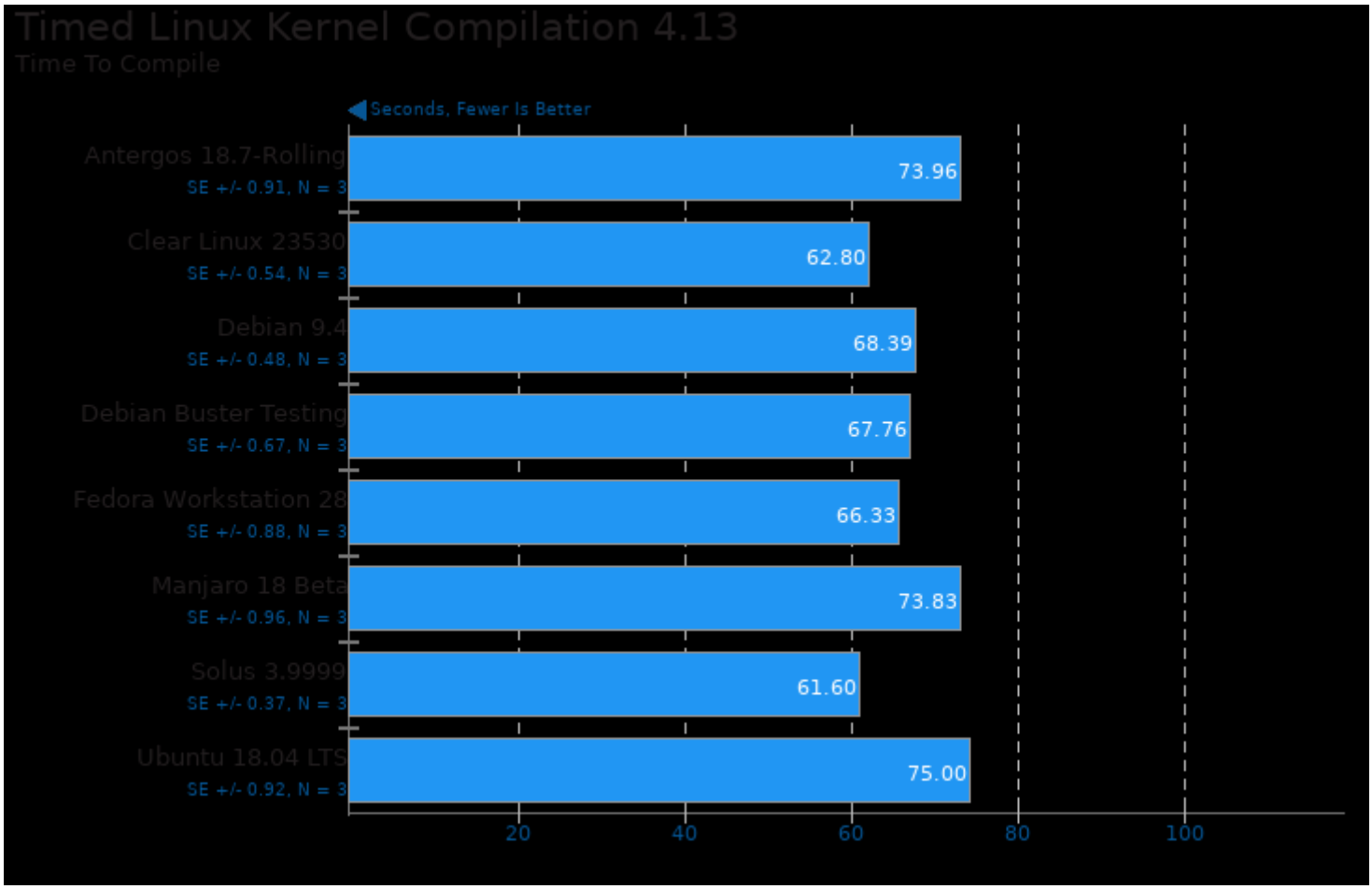

LuaJIT 2.0.5
Test: Composite
Mflops, More Is Better
Antergos 18.7-Rolling
SE +/- 0.31, N = 3
1831.95
Clear Linux 23530
SE +/- 1.91, N = 3
-O3 -pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math
1833.95
Debian 9.4
SE +/- 0.72, N = 3
1836.30
Debian Buster Testing
SE +/- 1.59, N = 3
1813.10
Fedora Workstation 28
SE +/- 1.56, N = 3
1836.53
Manjaro 18 Beta
SE +/- 2.19, N = 3
1834.06
Solus 3.9999
SE +/- 1.01, N = 3
1826.64
Ubuntu 18.04 LTS
SE +/- 6.18, N = 3
1830.46
openSUSE Tumbleweed 20180703
SE +/- 2.30, N = 3
1817.56
400
800
1200
1600
2000
1. (CC) gcc options: -lm -ldl -O2 -fomit-frame-pointer -U_FORTIFY_SOURCE -fno-stack-protector

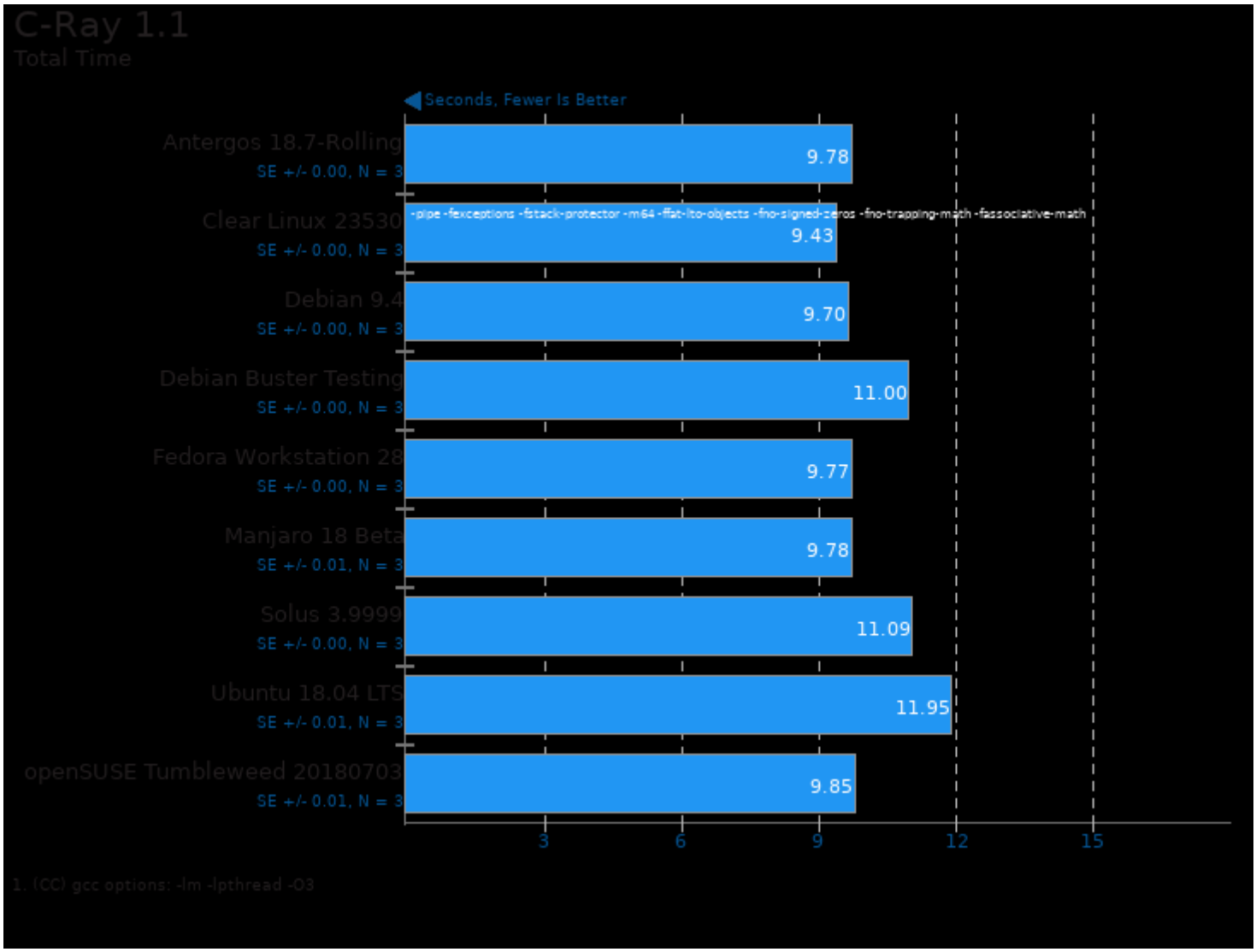

Crafty 25.2
Elapsed Time
Nodes Per Second, More Is Better
Antergos 18.7-Rolling
SE +/- 20234.04, N = 3
10001484
Clear Linux 23530
SE +/- 8656.84, N = 3
10527050
Debian 9.4
SE +/- 13632.03, N = 3
9892590
Debian Buster Testing
SE +/- 68729.39, N = 3
9947431
Fedora Workstation 28
SE +/- 3580.09, N = 3
10460691
Manjaro 18 Beta
SE +/- 3632.65, N = 3
9980900
Solus 3.9999
SE +/- 11149.01, N = 3
10280781
Ubuntu 18.04 LTS
SE +/- 18839.36, N = 3
9896840
openSUSE Tumbleweed 20180703
SE +/- 2997.96, N = 3
8552782
2M
4M
6M
8M
10M
1. (CC) gcc options: -pthread -lstdc++ -fprofile-use -lm

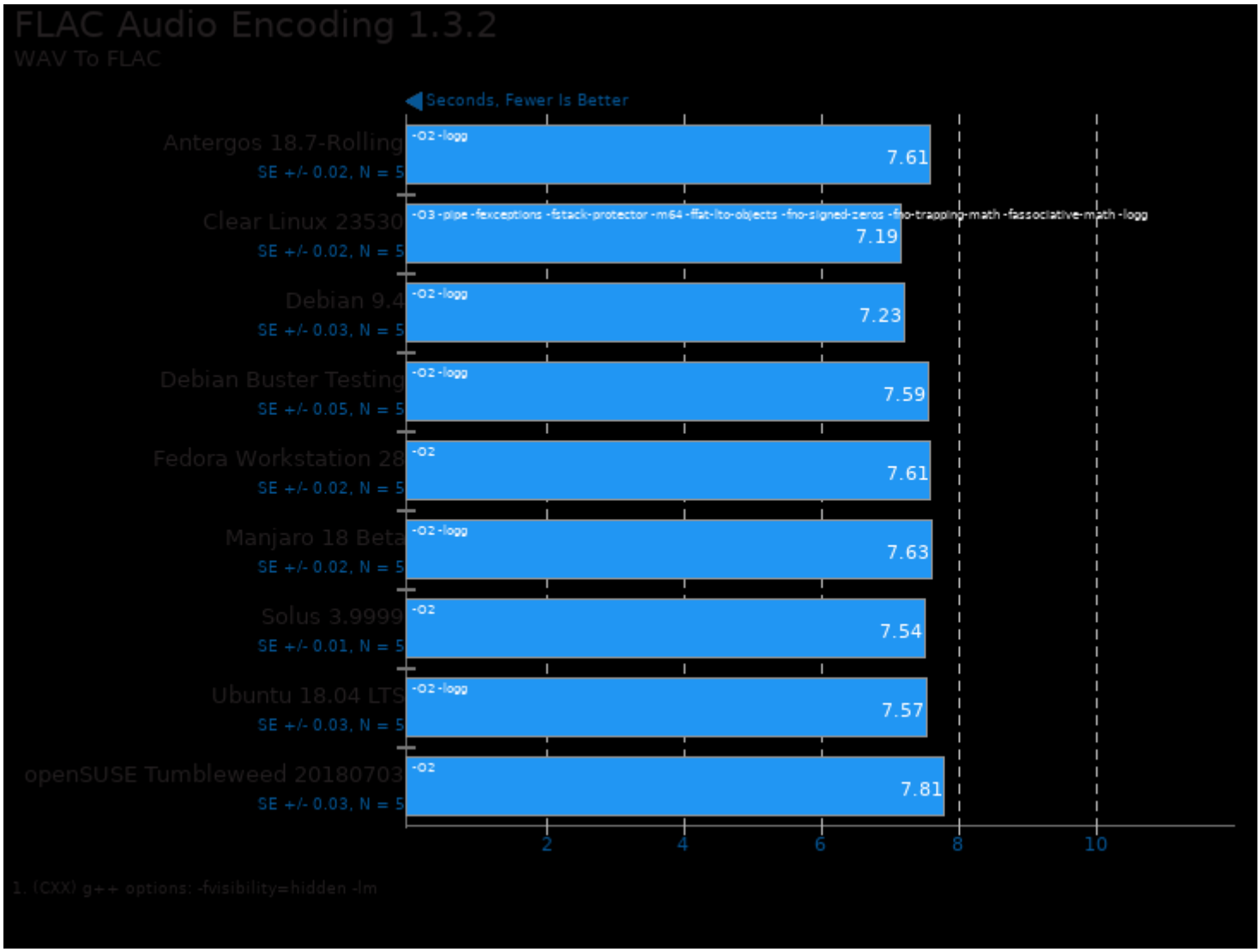

VP9 libvpx Encoding 1.7.0
vpxenc
Frames Per Second, More Is Better
Antergos 18.7-Rolling
SE +/- 0.26, N = 3
-U_FORTIFY_SOURCE
18.79
Clear Linux 23530
SE +/- 0.03, N = 3
-pipe -fexceptions -fstack-protector -ffat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math
19.35
Debian 9.4
SE +/- 0.05, N = 3
-U_FORTIFY_SOURCE
18.62
Debian Buster Testing
SE +/- 0.19, N = 3
-U_FORTIFY_SOURCE
18.79
Manjaro 18 Beta
SE +/- 0.07, N = 3
-U_FORTIFY_SOURCE
18.96
Solus 3.9999
SE +/- 0.03, N = 3
-U_FORTIFY_SOURCE
19.03
Ubuntu 18.04 LTS
SE +/- 0.15, N = 3
-U_FORTIFY_SOURCE
18.74
openSUSE Tumbleweed 20180703
SE +/- 0.00, N = 3
-U_FORTIFY_SOURCE
15.42
5
10
15
20
25
1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC

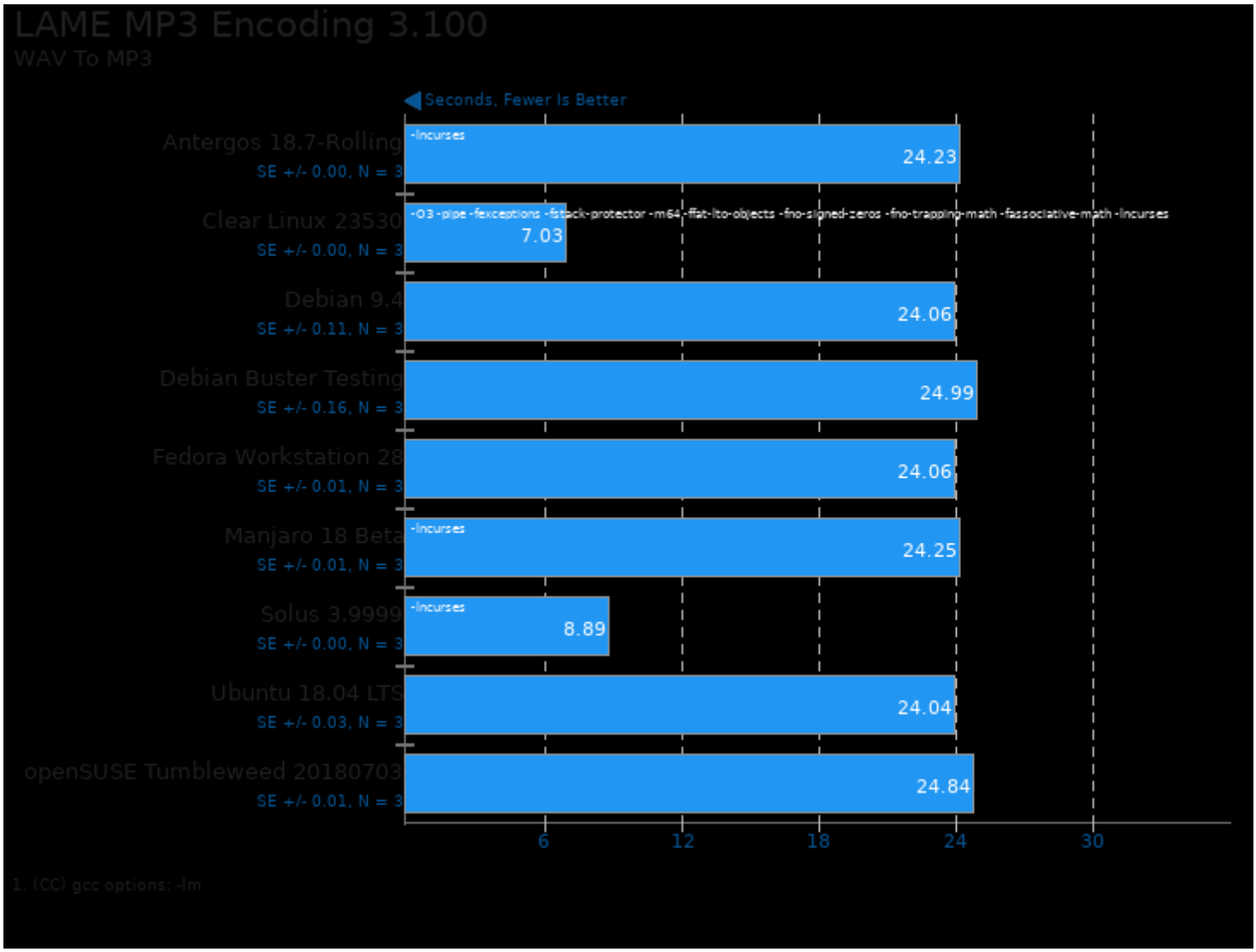

Himeno Benchmark 3.0
Poisson Pressure Solver
MFLOPS, More Is Better
Antergos 18.7-Rolling
SE +/- 23.35, N = 3
2931.75
Clear Linux 23530
SE +/- 39.09, N = 3
-pipe -fexceptions -fstack-protector -m64 -ffat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math
2891.25
Debian 9.4
SE +/- 34.16, N = 3
3331.53
Debian Buster Testing
SE +/- 8.41, N = 3
3331.17
Fedora Workstation 28
SE +/- 7.67, N = 3
2943.60
Manjaro 18 Beta
SE +/- 9.05, N = 3
2958.81
Solus 3.9999
SE +/- 10.53, N = 3
2858.83
Ubuntu 18.04 LTS
SE +/- 59.66, N = 3
3007.14
openSUSE Tumbleweed 20180703
SE +/- 24.71, N = 3
3261.09
700
1400
2100
2800
3500
1. (CC) gcc options: -O3 -mavx2

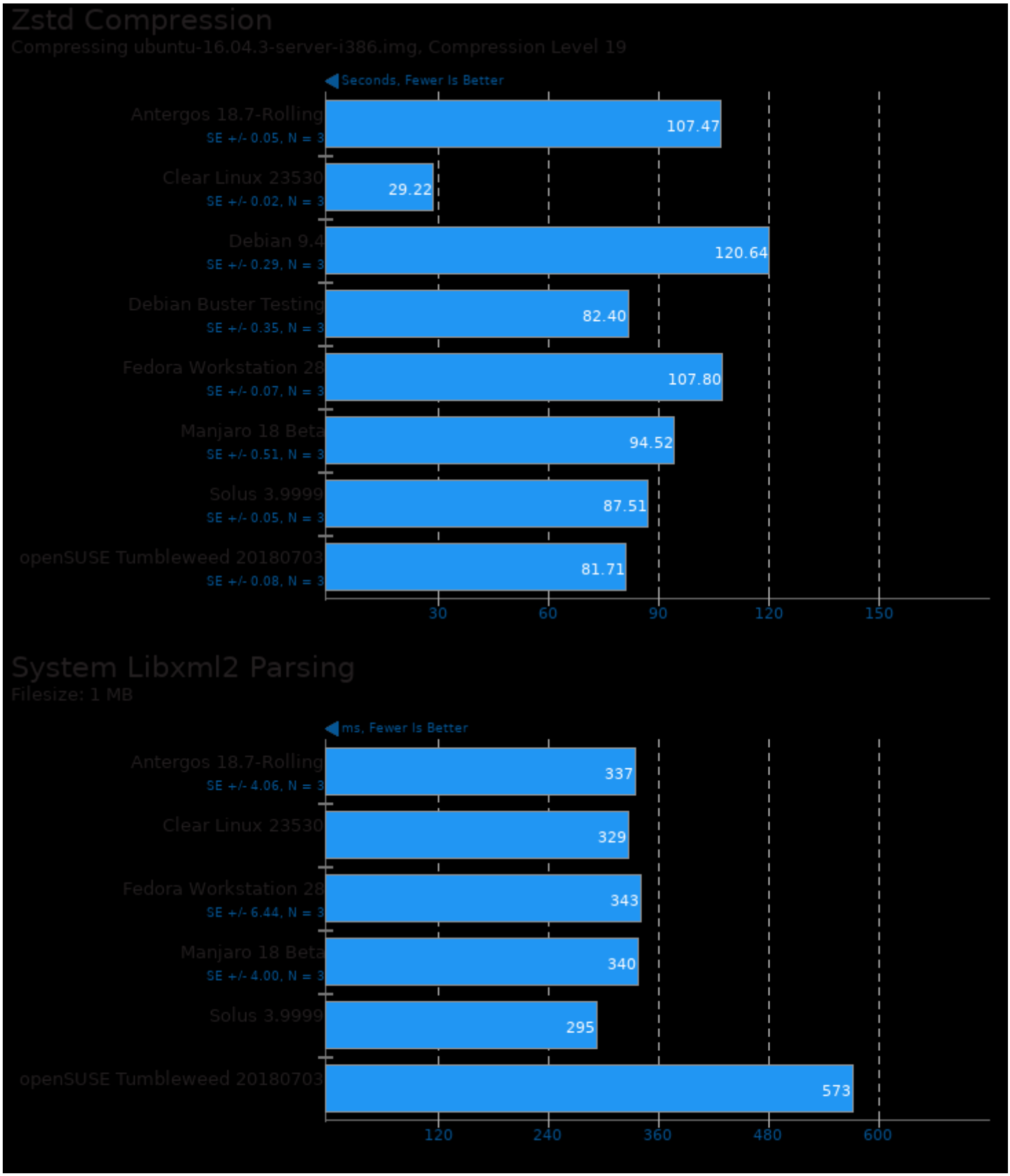

Stockfish 9
Total Time
Nodes Per Second, More Is Better
Antergos 18.7-Rolling
SE +/- 142736.89, N = 3
22051555
Clear Linux 23530
SE +/- 2366.51, N = 3
-pipe -fexceptions -fstack-protector -ffat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math
23474950
Debian 9.4
SE +/- 279363.58, N = 3
22008042
Debian Buster Testing
SE +/- 348263.70, N = 3
21970768
Fedora Workstation 28
SE +/- 266061.59, N = 3
23050415
Manjaro 18 Beta
SE +/- 50216.68, N = 3
21912004
Solus 3.9999
SE +/- 62347.73, N = 3
22255004
Ubuntu 18.04 LTS
SE +/- 147529.77, N = 3
19780790
openSUSE Tumbleweed 20180703
SE +/- 133834.68, N = 3
23795805
5M
10M
15M
20M
25M
1. (CXX) g++ options: -m64 -lpthread -fno-exceptions -std=c++11 -pedantic -O3 -msse -msse3 -mpopcnt -flto

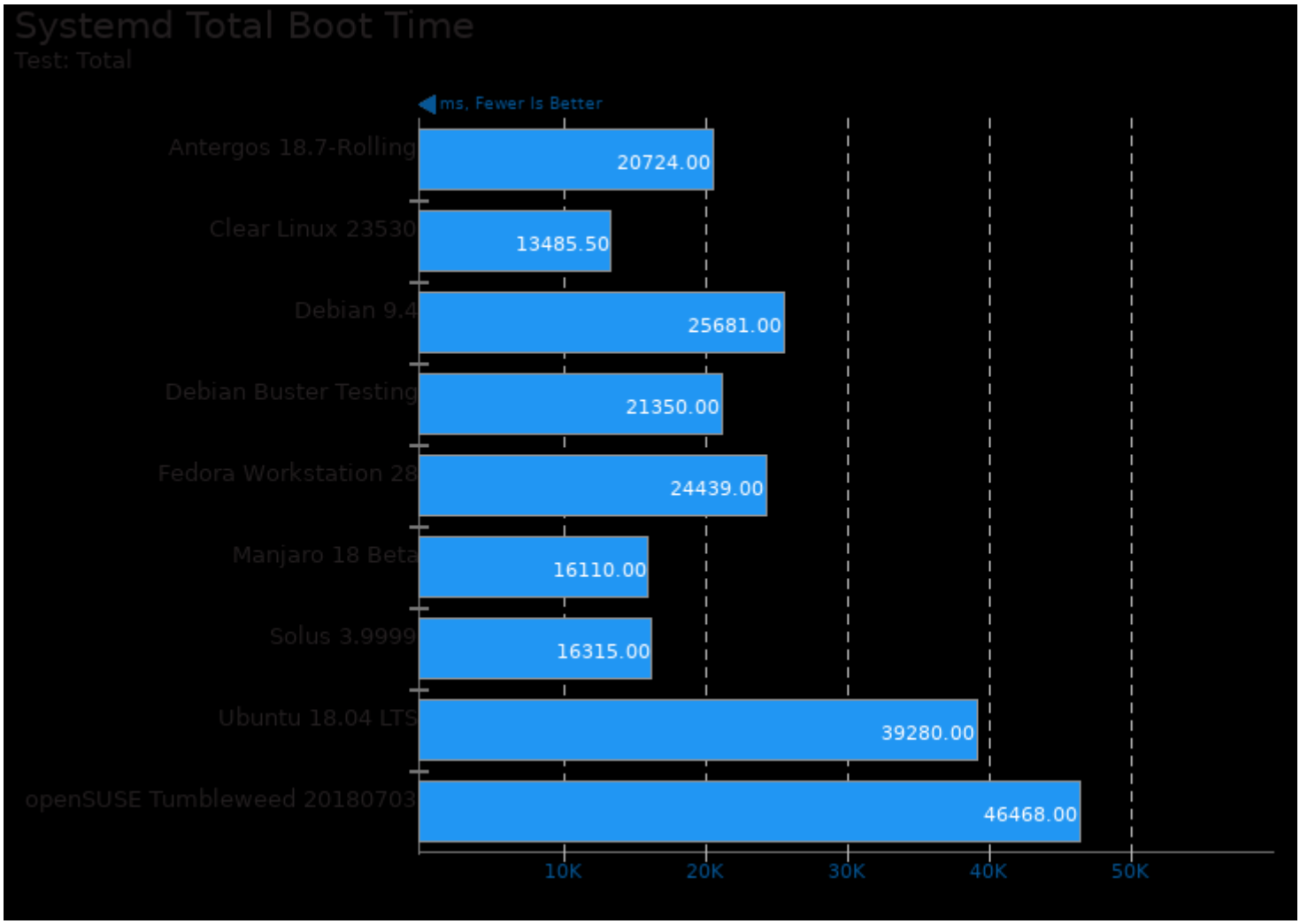

Timed Linux Kernel Compilation 4.13
Time To Compile
Seconds, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.91, N = 3
73.96
Clear Linux 23530
SE +/- 0.54, N = 3
62.80
Debian 9.4
SE +/- 0.48, N = 3
68.39
Debian Buster Testing
SE +/- 0.67, N = 3
67.76
Fedora Workstation 28
SE +/- 0.88, N = 3
66.33
Manjaro 18 Beta
SE +/- 0.96, N = 3
73.83
Solus 3.9999
SE +/- 0.37, N = 3
61.60
Ubuntu 18.04 LTS
SE +/- 0.92, N = 3
75.00
20
40
60
80
100

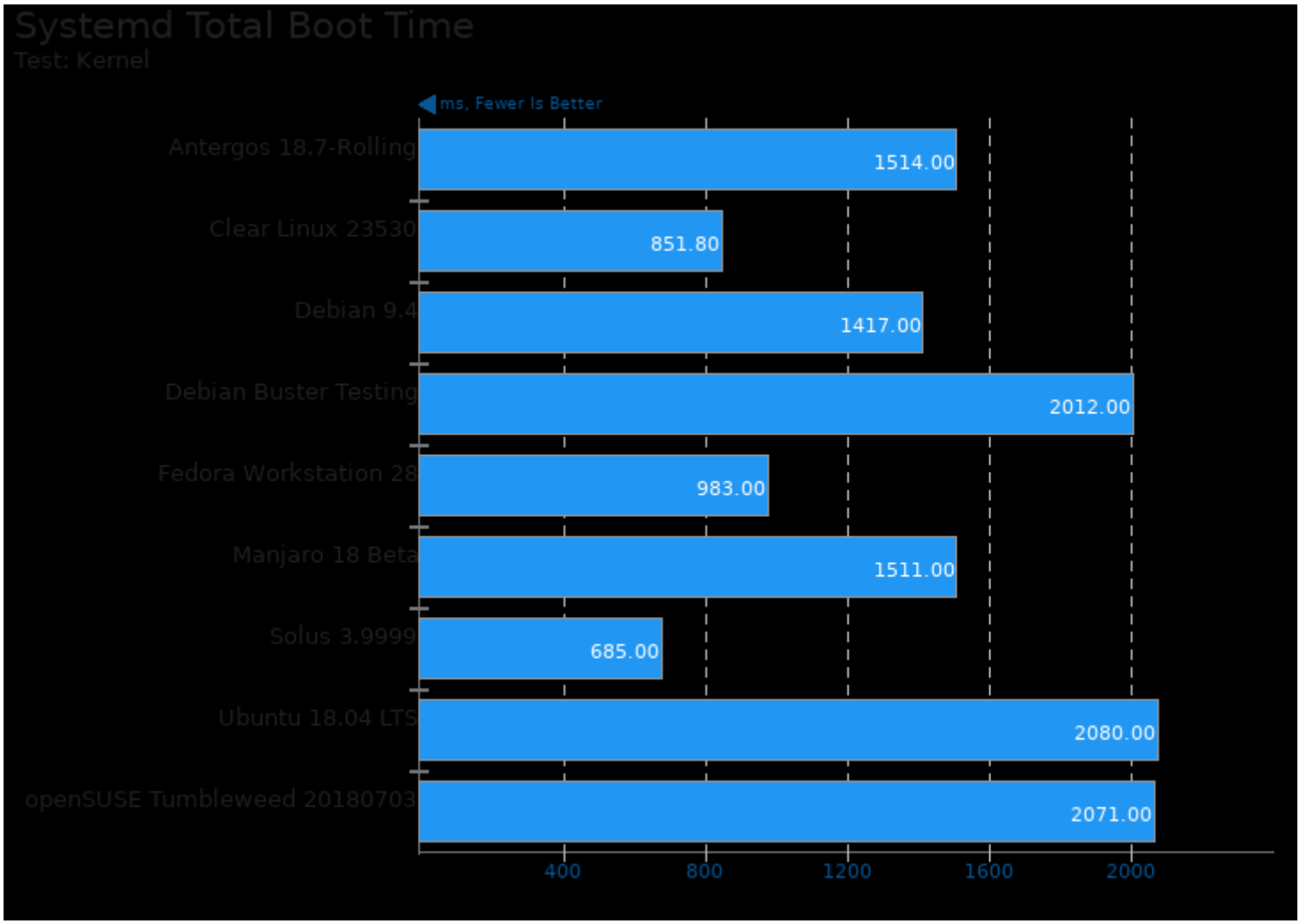

C-Ray 1.1
Total Time
Seconds, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.00, N = 3
9.78
Clear Linux 23530
SE +/- 0.00, N = 3
-pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math
9.43
Debian 9.4
SE +/- 0.00, N = 3
9.70
Debian Buster Testing
SE +/- 0.00, N = 3
11.00
Fedora Workstation 28
SE +/- 0.00, N = 3
9.77
Manjaro 18 Beta
SE +/- 0.01, N = 3
9.78
Solus 3.9999
SE +/- 0.00, N = 3
11.09
Ubuntu 18.04 LTS
SE +/- 0.01, N = 3
11.95
openSUSE Tumbleweed 20180703
SE +/- 0.01, N = 3
9.85
3
6
9
12
15
1. (CC) gcc options: -lm -lpthread -O3

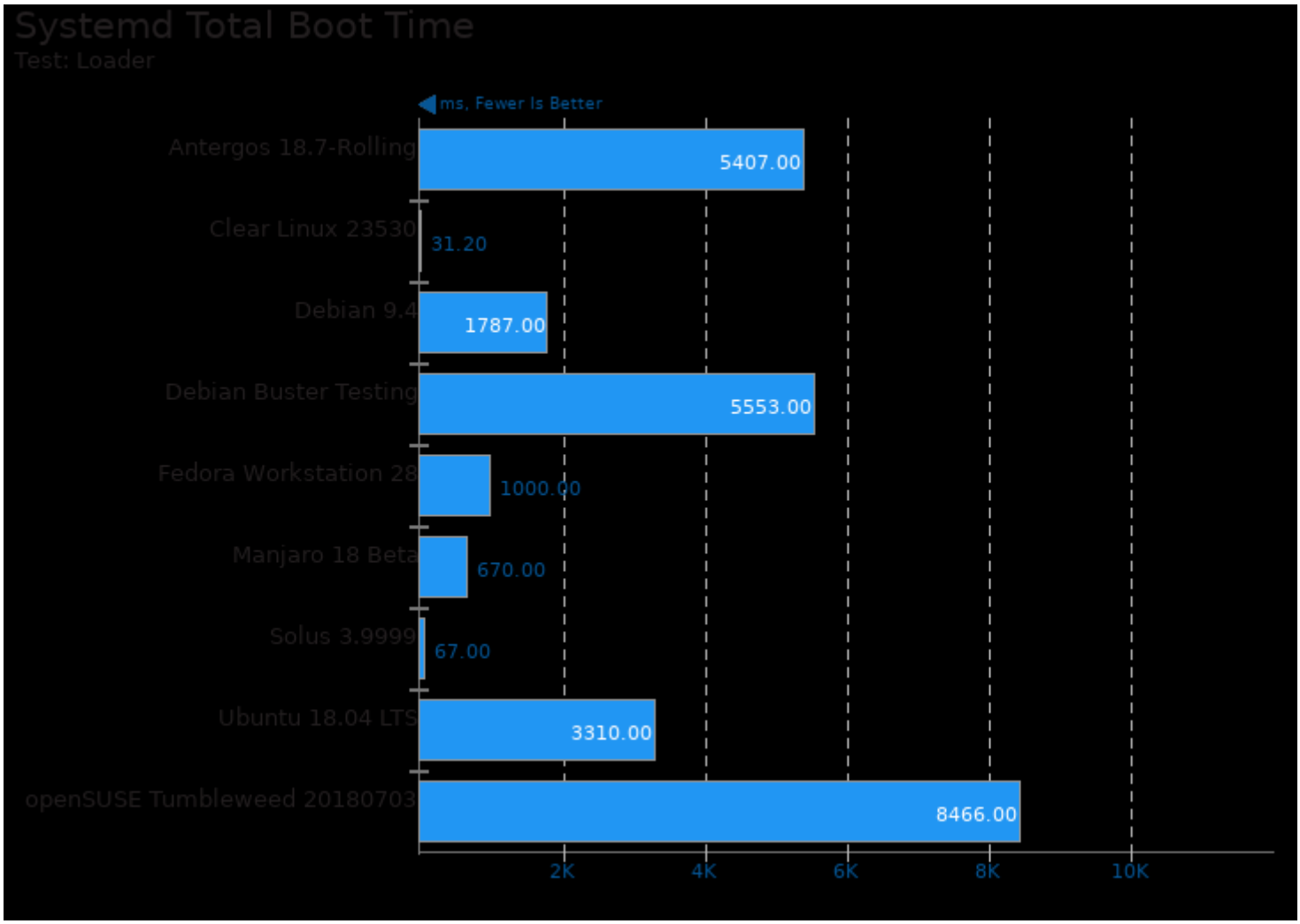

FLAC Audio Encoding 1.3.2
WAV To FLAC
Seconds, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.02, N = 5
-O2 -logg
7.61
Clear Linux 23530
SE +/- 0.02, N = 5
-O3 -pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math -logg
7.19
Debian 9.4
SE +/- 0.03, N = 5
-O2 -logg
7.23
Debian Buster Testing
SE +/- 0.05, N = 5
-O2 -logg
7.59
Fedora Workstation 28
SE +/- 0.02, N = 5
-O2
7.61
Manjaro 18 Beta
SE +/- 0.02, N = 5
-O2 -logg
7.63
Solus 3.9999
SE +/- 0.01, N = 5
-O2
7.54
Ubuntu 18.04 LTS
SE +/- 0.03, N = 5
-O2 -logg
7.57
openSUSE Tumbleweed 20180703
SE +/- 0.03, N = 5
-O2
7.81
2
4
6
8
10
1. (CXX) g++ options: -fvisibility=hidden -lm

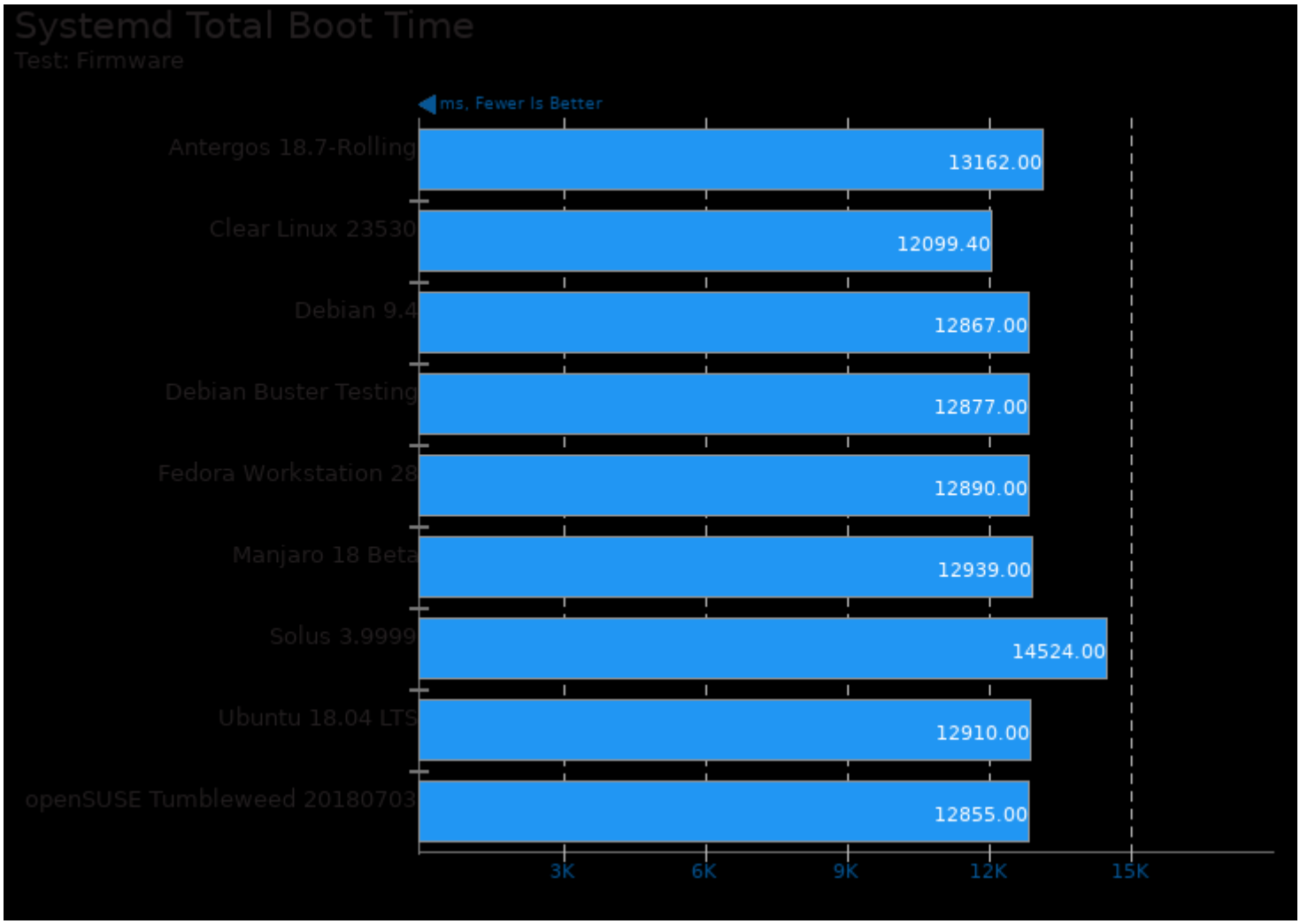

LAME MP3 Encoding 3.100
WAV To MP3
Seconds, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.00, N = 3
-lncurses
24.23
Clear Linux 23530
SE +/- 0.00, N = 3
-O3 -pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math -lncurses
7.03
Debian 9.4
SE +/- 0.11, N = 3
24.06
Debian Buster Testing
SE +/- 0.16, N = 3
24.99
Fedora Workstation 28
SE +/- 0.01, N = 3
24.06
Manjaro 18 Beta
SE +/- 0.01, N = 3
-lncurses
24.25
Solus 3.9999
SE +/- 0.00, N = 3
-lncurses
8.89
Ubuntu 18.04 LTS
SE +/- 0.03, N = 3
24.04
openSUSE Tumbleweed 20180703
SE +/- 0.01, N = 3
24.84
6
12
18
24
30
1. (CC) gcc options: -lm

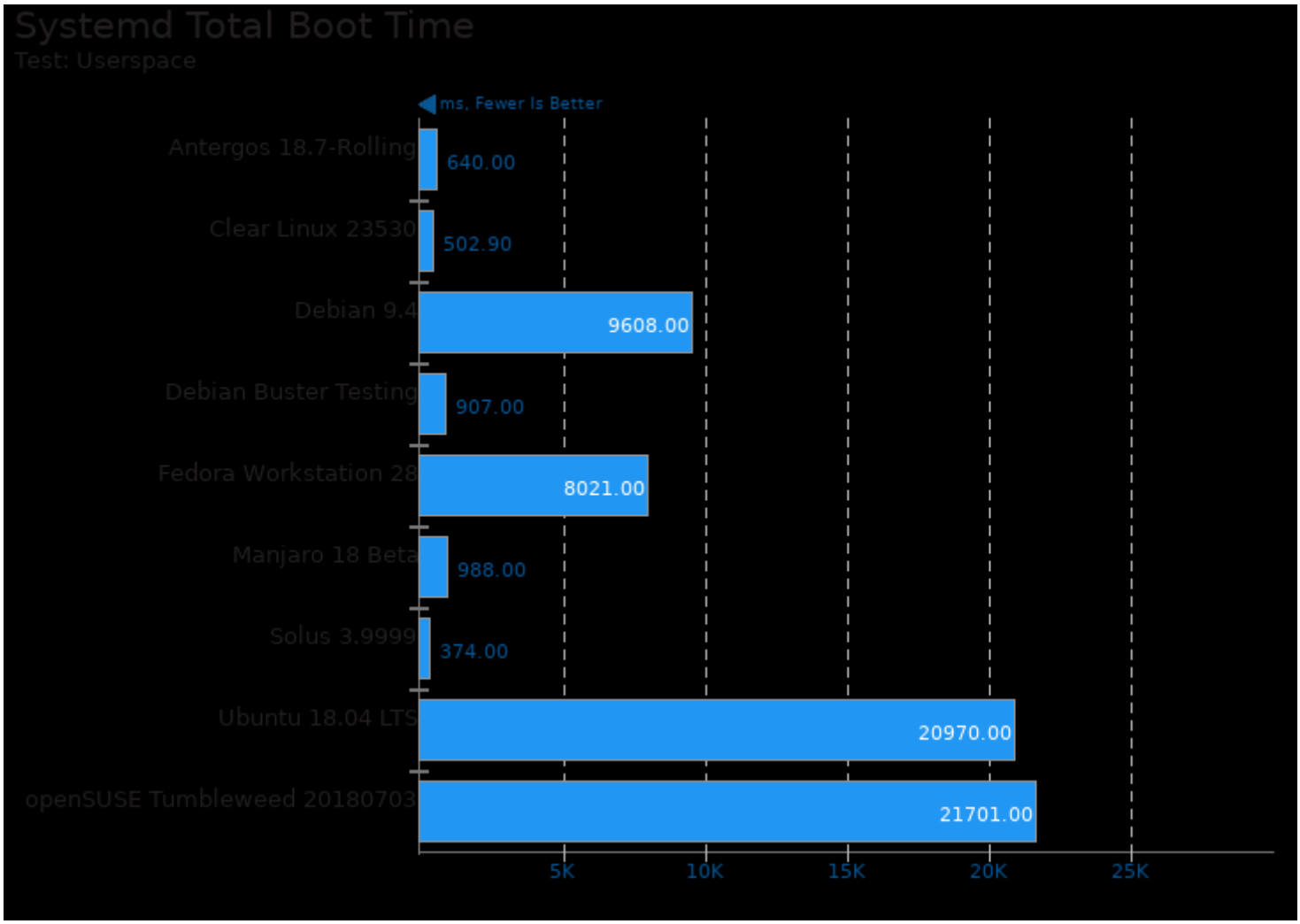

Zstd Compression
Compressing ubuntu-16.04.3-server-i386.img, Compression Level 19
Seconds, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.05, N = 3
107.47
Clear Linux 23530
SE +/- 0.02, N = 3
29.22
Debian 9.4
SE +/- 0.29, N = 3
120.64
Debian Buster Testing
SE +/- 0.35, N = 3
82.40
Fedora Workstation 28
SE +/- 0.07, N = 3
107.80
Manjaro 18 Beta
SE +/- 0.51, N = 3
94.52
Solus 3.9999
SE +/- 0.05, N = 3
87.51
openSUSE Tumbleweed 20180703
SE +/- 0.08, N = 3
81.71
30
60
90
120
150
System Libxml2 Parsing
Filesize: 1 MB
ms, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 4.06, N = 3
337
Clear Linux 23530
329
Fedora Workstation 28
SE +/- 6.44, N = 3
343
Manjaro 18 Beta
SE +/- 4.00, N = 3
340
Solus 3.9999
295
openSUSE Tumbleweed 20180703
573
120
240
360
480
600

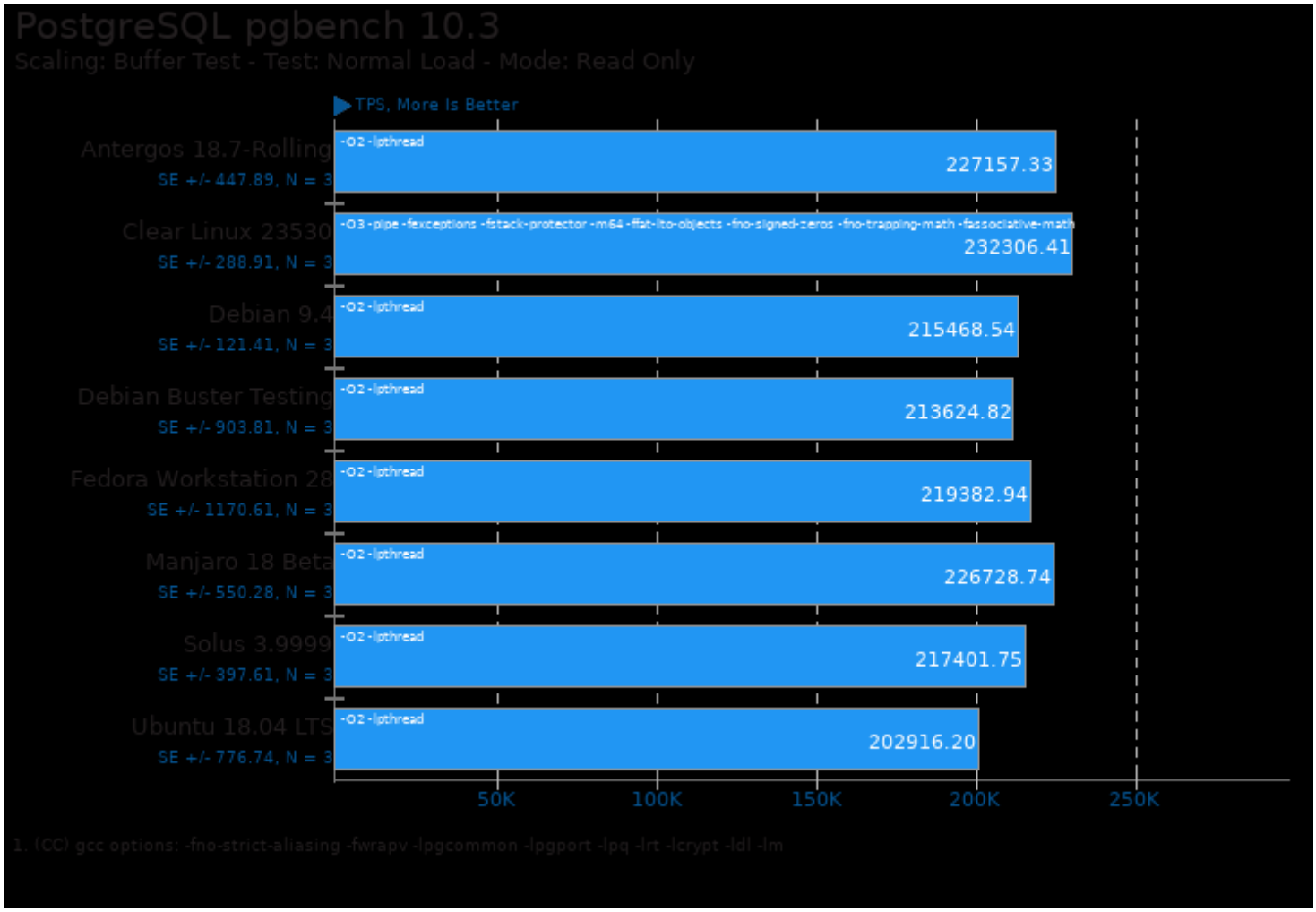

Systemd Total Boot Time
Test: Total
ms, Fewer Is Better
Antergos 18.7-Rolling
20724.00
Clear Linux 23530
13485.50
Debian 9.4
25681.00
Debian Buster Testing
21350.00
Fedora Workstation 28
24439.00
Manjaro 18 Beta
16110.00
Solus 3.9999
16315.00
Ubuntu 18.04 LTS
39280.00
openSUSE Tumbleweed 20180703
46468.00
10K
20K
30K
40K
50K

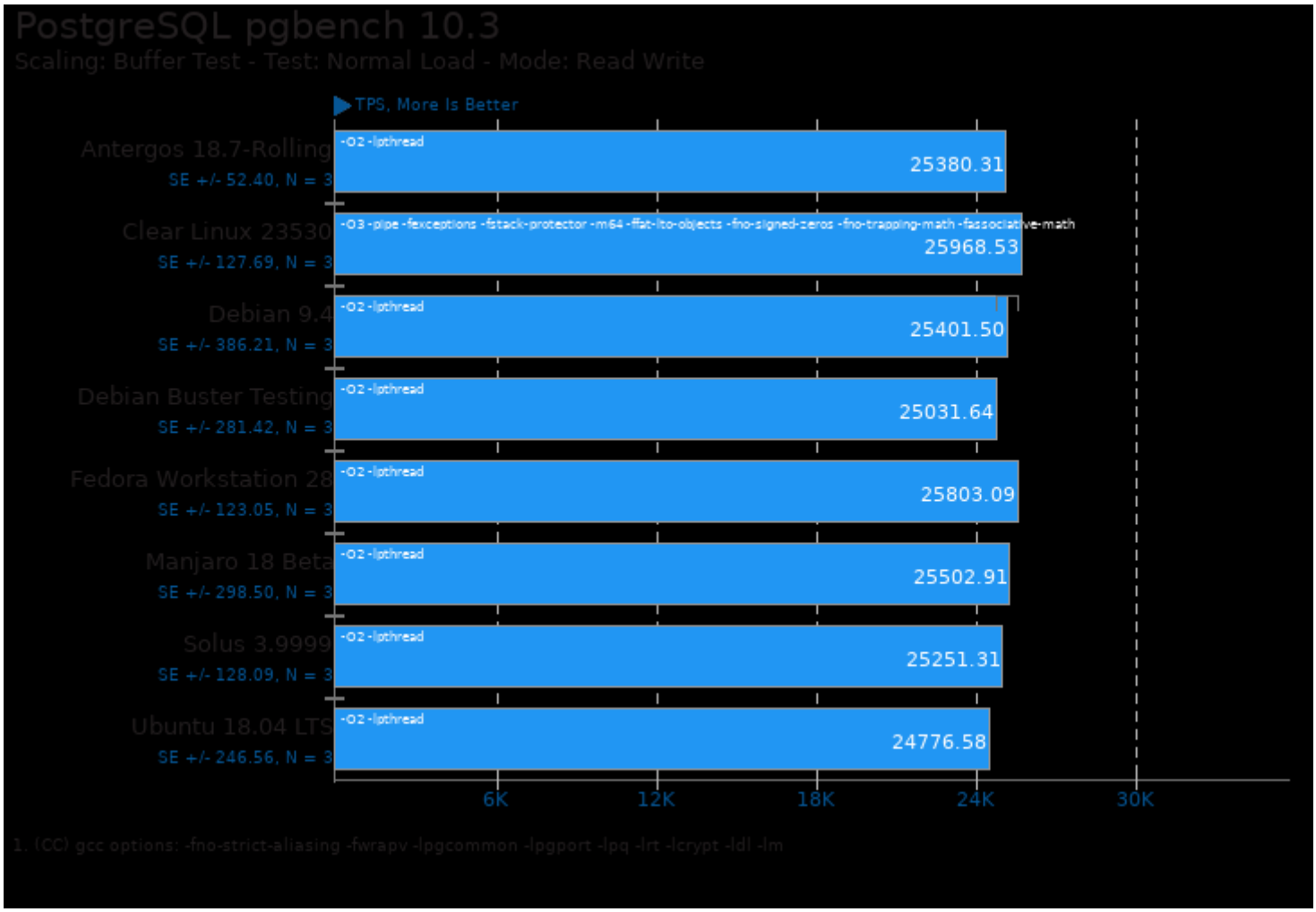

Systemd Total Boot Time
Test: Kernel
ms, Fewer Is Better
Antergos 18.7-Rolling
1514.00
Clear Linux 23530
851.80
Debian 9.4
1417.00
Debian Buster Testing
2012.00
Fedora Workstation 28
983.00
Manjaro 18 Beta
1511.00
Solus 3.9999
685.00
Ubuntu 18.04 LTS
2080.00
openSUSE Tumbleweed 20180703
2071.00
400
800
1200
1600
2000

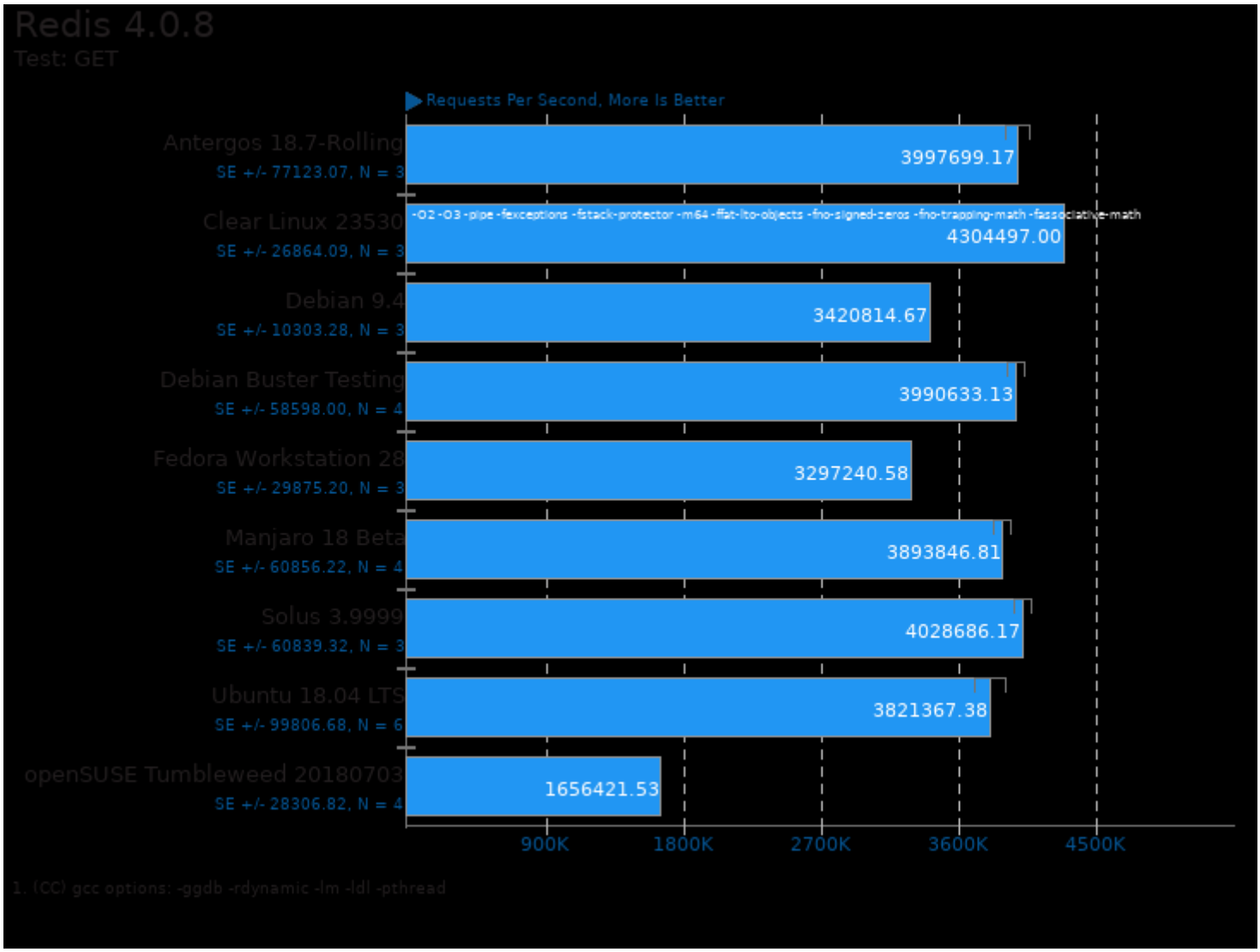

Systemd Total Boot Time
Test: Loader
ms, Fewer Is Better
Antergos 18.7-Rolling
5407.00
Clear Linux 23530
31.20
Debian 9.4
1787.00
Debian Buster Testing
5553.00
Fedora Workstation 28
1000.00
Manjaro 18 Beta
670.00
Solus 3.9999
67.00
Ubuntu 18.04 LTS
3310.00
openSUSE Tumbleweed 20180703
8466.00
2K
4K
6K
8K
10K

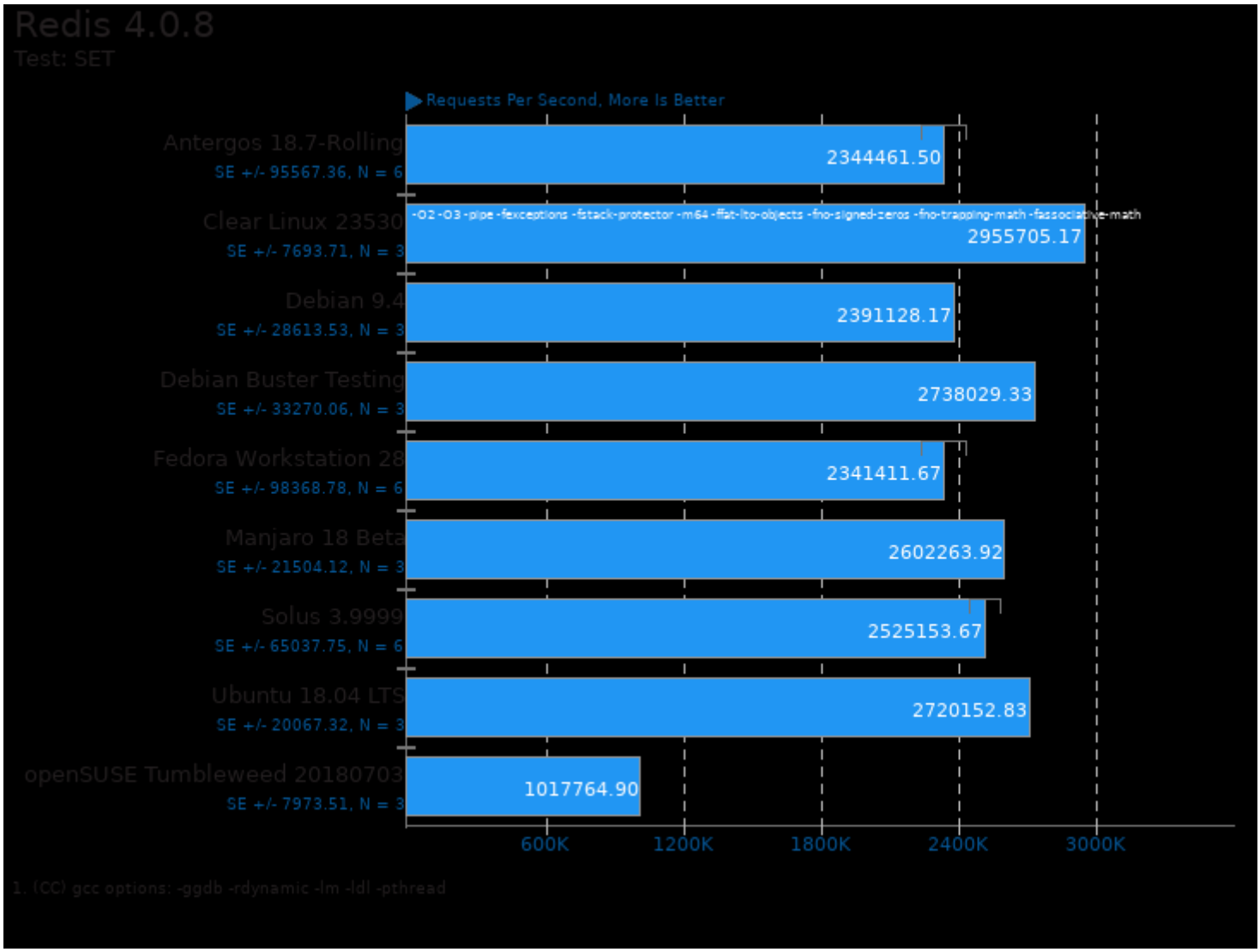

Systemd Total Boot Time
Test: Firmware
ms, Fewer Is Better
Antergos 18.7-Rolling
13162.00
Clear Linux 23530
12099.40
Debian 9.4
12867.00
Debian Buster Testing
12877.00
Fedora Workstation 28
12890.00
Manjaro 18 Beta
12939.00
Solus 3.9999
14524.00
Ubuntu 18.04 LTS
12910.00
openSUSE Tumbleweed 20180703
12855.00
3K
6K
9K
12K
15K

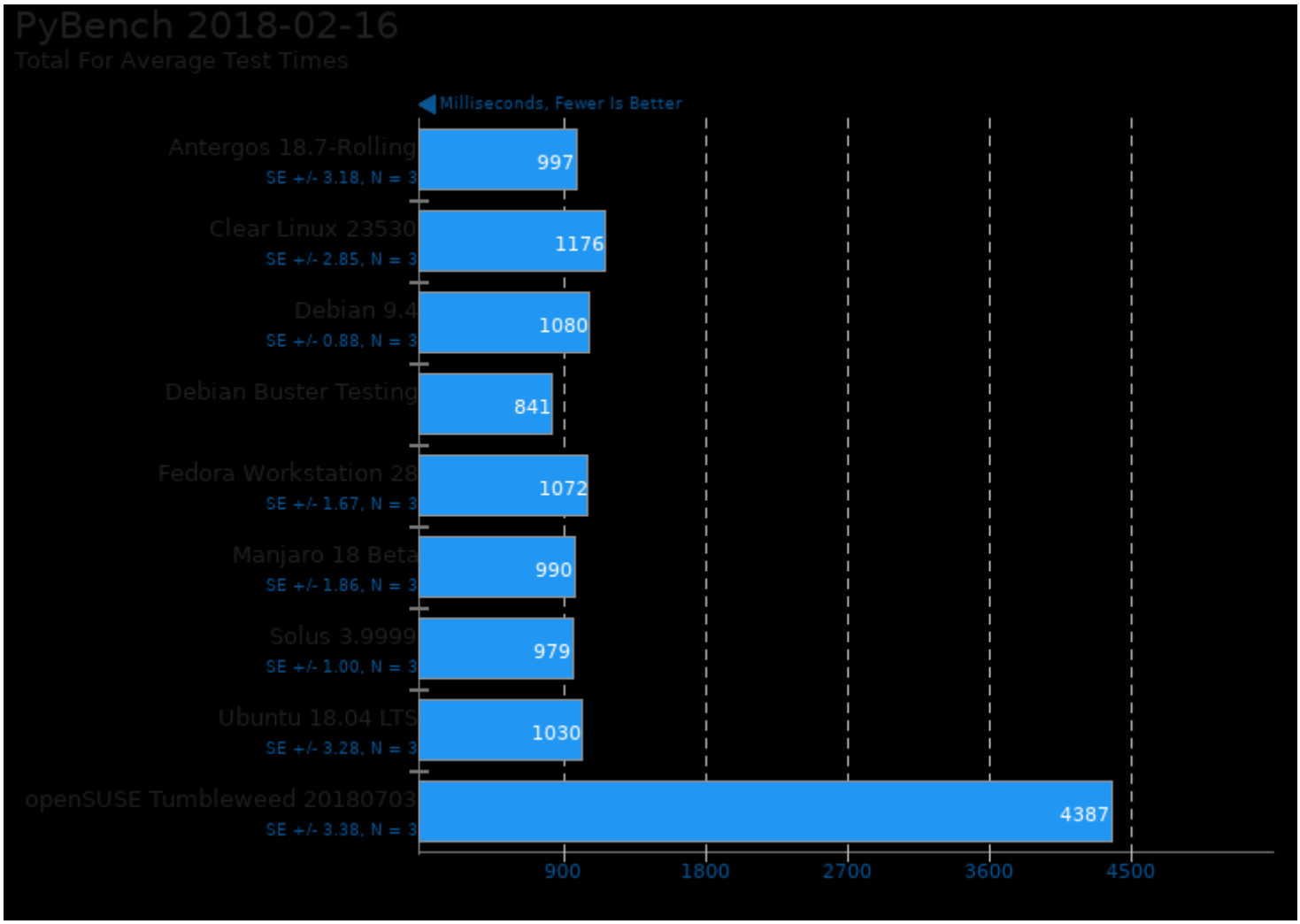

Systemd Total Boot Time
Test: Userspace
ms, Fewer Is Better
Antergos 18.7-Rolling
640.00
Clear Linux 23530
502.90
Debian 9.4
9608.00
Debian Buster Testing
907.00
Fedora Workstation 28
8021.00
Manjaro 18 Beta
988.00
Solus 3.9999
374.00
Ubuntu 18.04 LTS
20970.00
openSUSE Tumbleweed 20180703
21701.00
5K
10K
15K
20K
25K

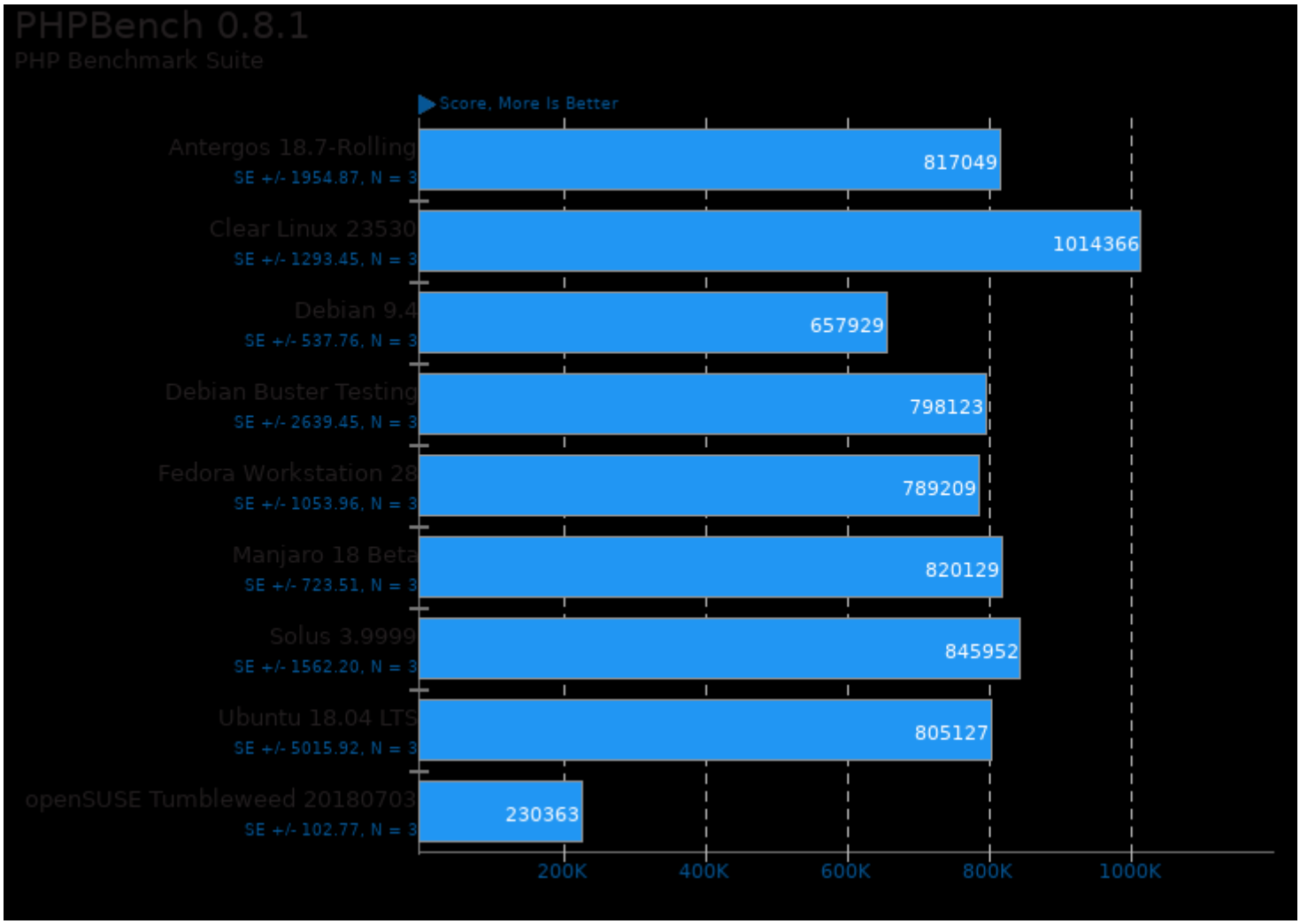

PostgreSQL pgbench 10.3
Scaling: Buffer Test - Test: Normal Load - Mode: Read Only
TPS, More Is Better
Antergos 18.7-Rolling
SE +/- 447.89, N = 3
-O2 -lpthread
227157.33
Clear Linux 23530
SE +/- 288.91, N = 3
-O3 -pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math
232306.41
Debian 9.4
SE +/- 121.41, N = 3
-O2 -lpthread
215468.54
Debian Buster Testing
SE +/- 903.81, N = 3
-O2 -lpthread
213624.82
Fedora Workstation 28
SE +/- 1170.61, N = 3
-O2 -lpthread
219382.94
Manjaro 18 Beta
SE +/- 550.28, N = 3
-O2 -lpthread
226728.74
Solus 3.9999
SE +/- 397.61, N = 3
-O2 -lpthread
217401.75
Ubuntu 18.04 LTS
SE +/- 776.74, N = 3
-O2 -lpthread
202916.20
50K
100K
150K
200K
250K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -lpgcommon -lpgport -lpq -lrt -lcrypt -ldl -lm

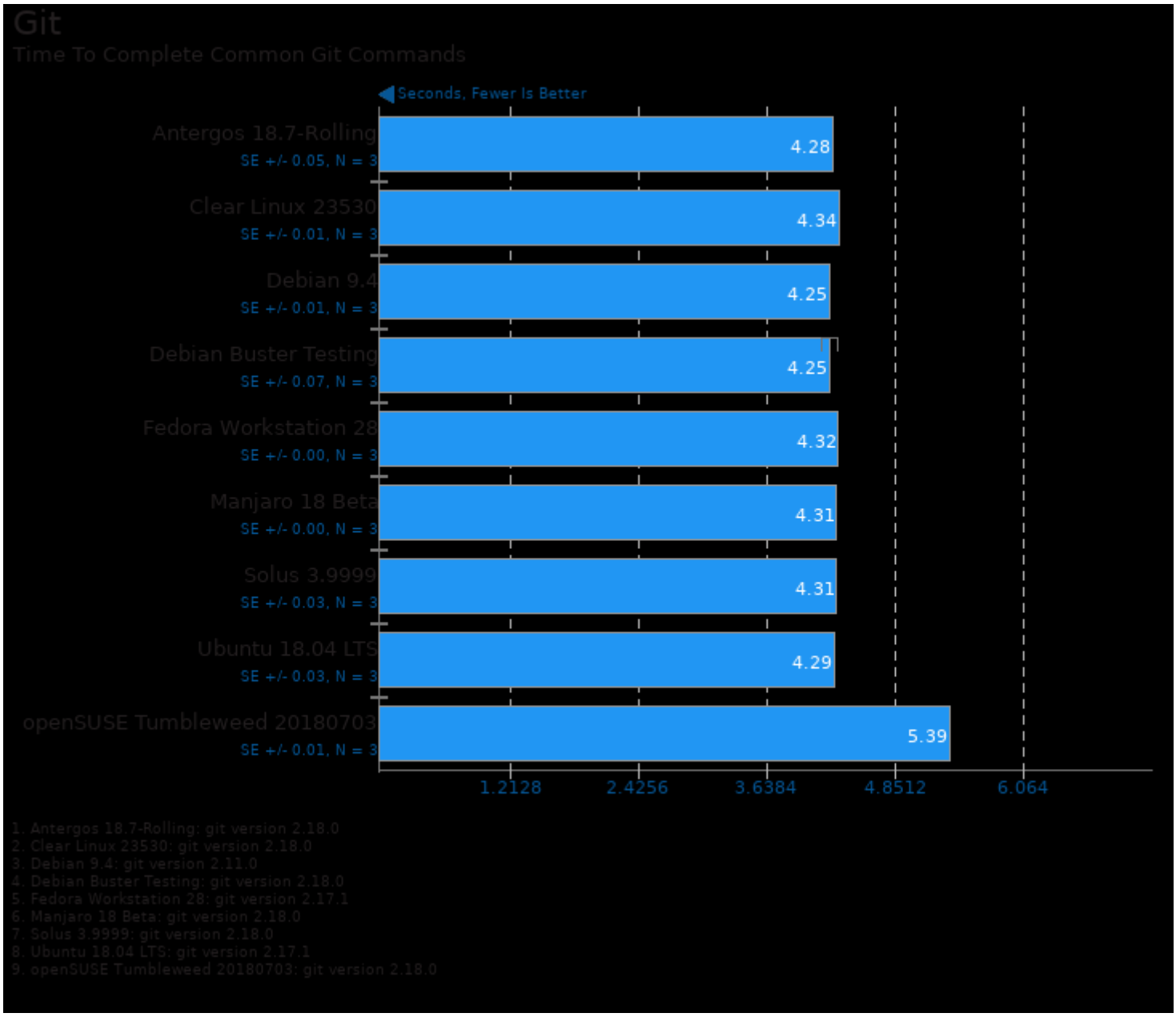

PostgreSQL pgbench 10.3
Scaling: Buffer Test - Test: Normal Load - Mode: Read Write
TPS, More Is Better
Antergos 18.7-Rolling
SE +/- 52.40, N = 3
-O2 -lpthread
25380.31
Clear Linux 23530
SE +/- 127.69, N = 3
-O3 -pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math
25968.53
Debian 9.4
SE +/- 386.21, N = 3
-O2 -lpthread
25401.50
Debian Buster Testing
SE +/- 281.42, N = 3
-O2 -lpthread
25031.64
Fedora Workstation 28
SE +/- 123.05, N = 3
-O2 -lpthread
25803.09
Manjaro 18 Beta
SE +/- 298.50, N = 3
-O2 -lpthread
25502.91
Solus 3.9999
SE +/- 128.09, N = 3
-O2 -lpthread
25251.31
Ubuntu 18.04 LTS
SE +/- 246.56, N = 3
-O2 -lpthread
24776.58
6K
12K
18K
24K
30K
1. (CC) gcc options: -fno-strict-aliasing -fwrapv -lpgcommon -lpgport -lpq -lrt -lcrypt -ldl -lm

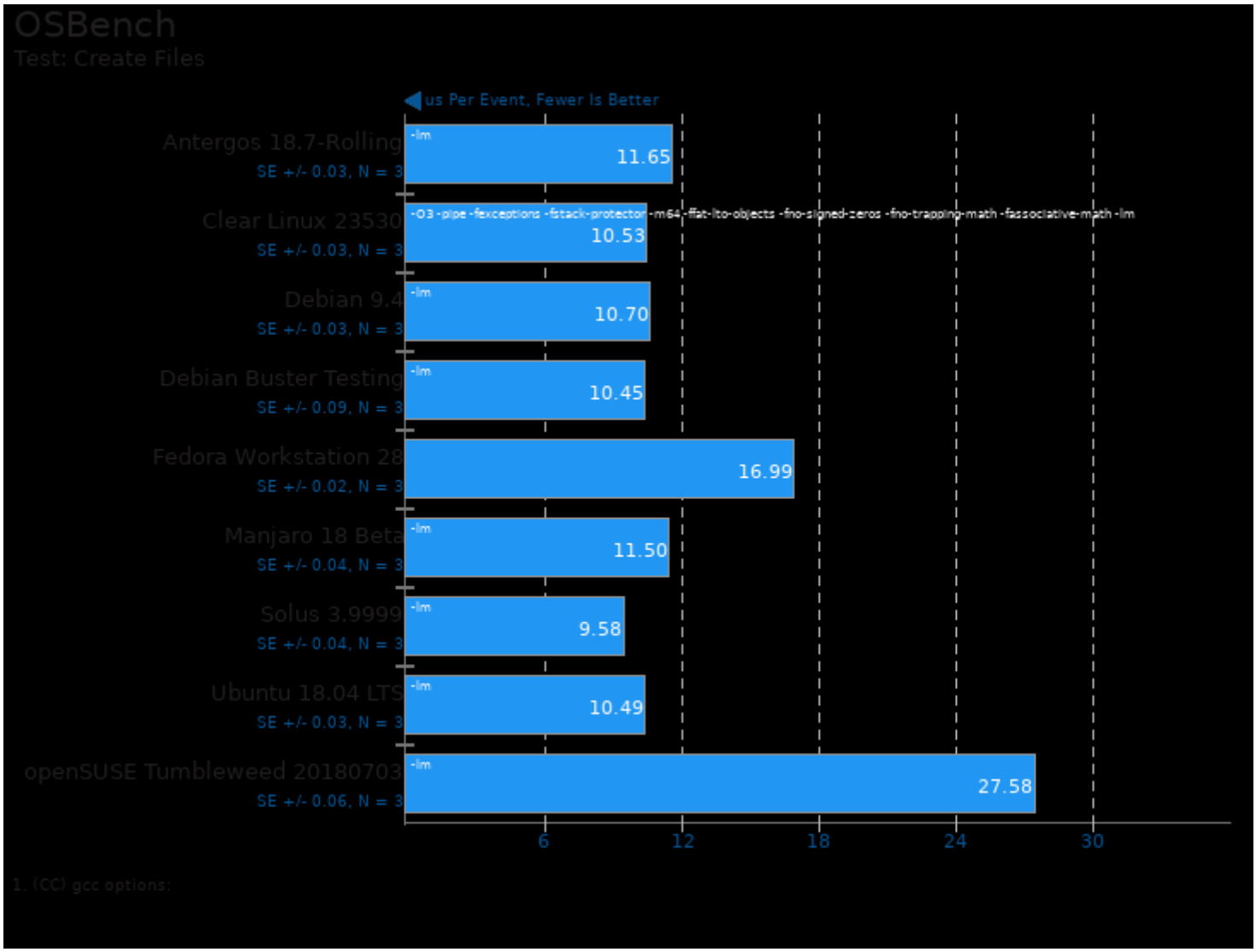

Redis 4.0.8
Test: GET
Requests Per Second, More Is Better
Antergos 18.7-Rolling
SE +/- 77123.07, N = 3
3997699.17
Clear Linux 23530
SE +/- 26864.09, N = 3
-O2 -O3 -pipe -fexceptions -fstack-protector -m64 -flto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math
4304497.00
Debian 9.4
SE +/- 10303.28, N = 3
3420814.67
Debian Buster Testing
SE +/- 58598.00, N = 4
3990633.13
Fedora Workstation 28
SE +/- 29875.20, N = 3
3297240.58
Manjaro 18 Beta
SE +/- 60856.22, N = 4
3893846.81
Solus 3.9999
SE +/- 60839.32, N = 3
4028686.17
Ubuntu 18.04 LTS
SE +/- 99806.68, N = 6
3821367.38
openSUSE Tumbleweed 20180703
SE +/- 28306.82, N = 4
1656421.53
900K
1800K
2700K
3600K
4500K
1. (CC) gcc options: -ggdb -rdynamic -lm -ldl -pthread

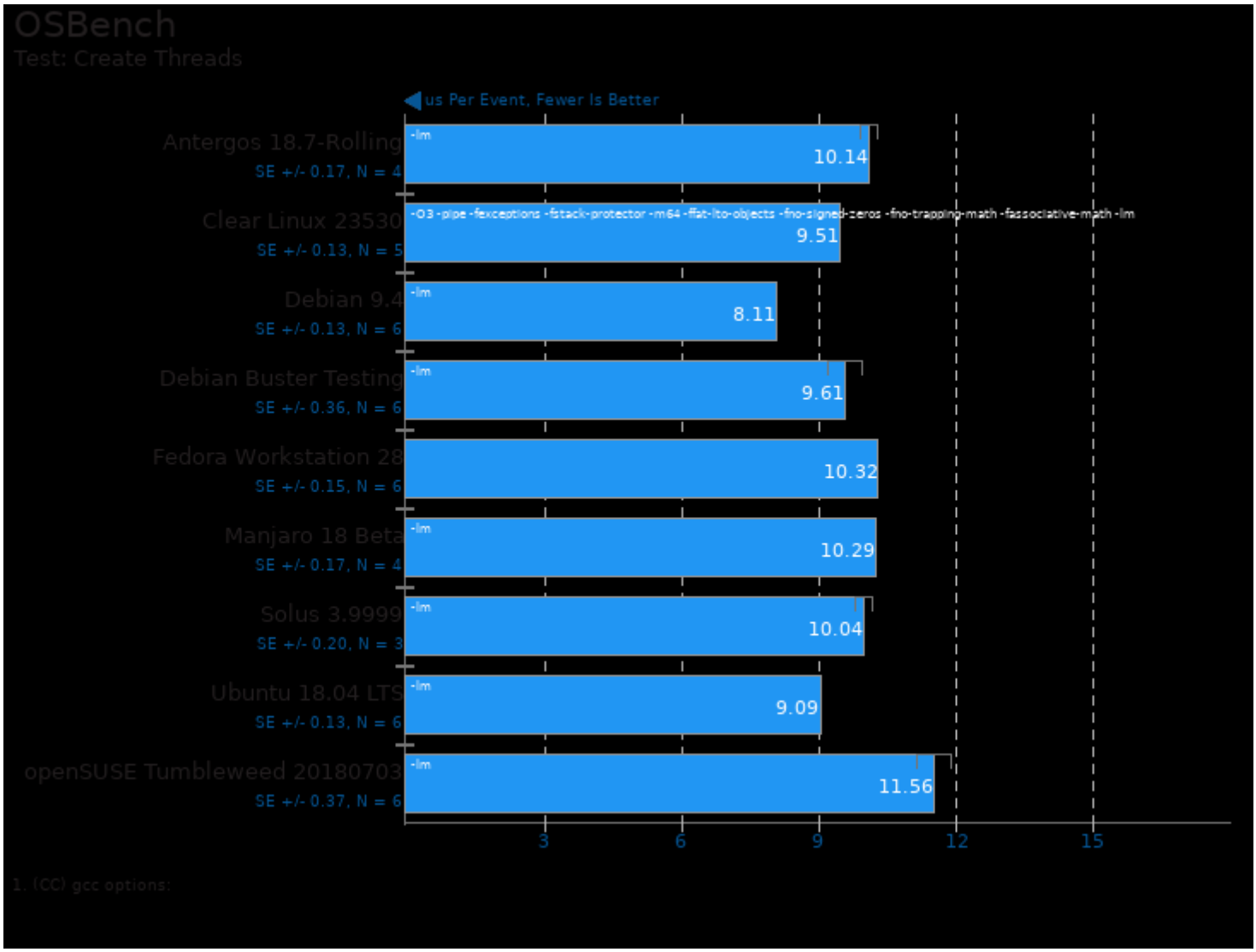

Redis 4.0.8
Test: SET
Requests Per Second, More Is Better
Antergos 18.7-Rolling
SE +/- 95567.36, N = 6
2344461.50
Clear Linux 23530
SE +/- 7693.71, N = 3
-O2 -O3 -pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math
2955705.17
Debian 9.4
SE +/- 28613.53, N = 3
2391128.17
Debian Buster Testing
SE +/- 33270.06, N = 3
2738029.33
Fedora Workstation 28
SE +/- 98368.78, N = 6
2341411.67
Manjaro 18 Beta
SE +/- 21504.12, N = 3
2602263.92
Solus 3.9999
SE +/- 65037.75, N = 6
2525153.67
Ubuntu 18.04 LTS
SE +/- 20067.32, N = 3
2720152.83
openSUSE Tumbleweed 20180703
SE +/- 7973.51, N = 3
1017764.90
600K
1200K
1800K
2400K
3000K
1. (CC) gcc options: -ggdb -rdynamic -lm -ldl -pthread

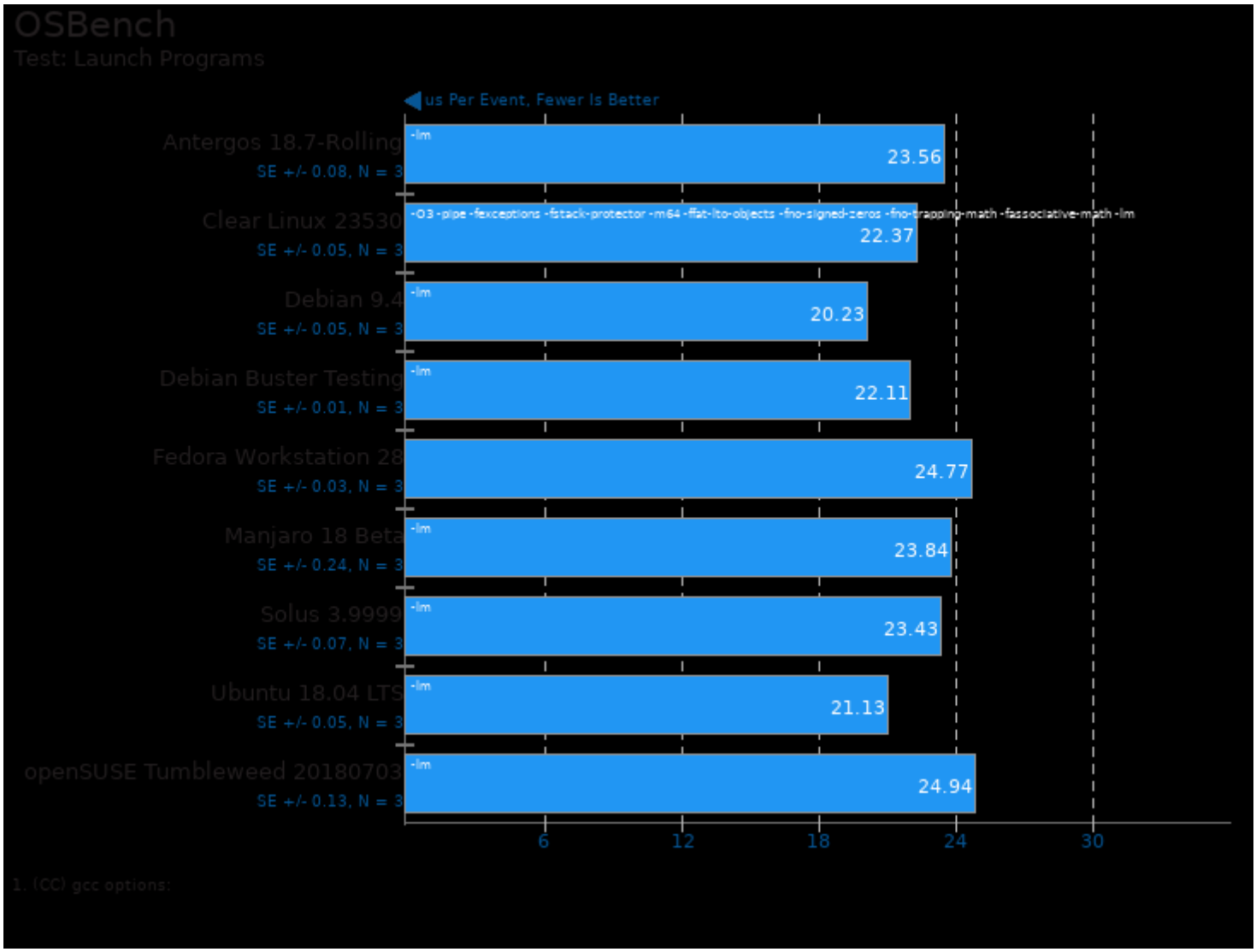

PyBench 2018-02-16
Total For Average Test Times
Milliseconds, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 3.18, N = 3
997
Clear Linux 23530
SE +/- 2.85, N = 3
1176
Debian 9.4
SE +/- 0.88, N = 3
1080
Debian Buster Testing
841
Fedora Workstation 28
SE +/- 1.67, N = 3
1072
Manjaro 18 Beta
SE +/- 1.86, N = 3
990
Solus 3.9999
SE +/- 1.00, N = 3
979
Ubuntu 18.04 LTS
SE +/- 3.28, N = 3
1030
openSUSE Tumbleweed 20180703
SE +/- 3.38, N = 3
4387
900
1800
2700
3600
4500

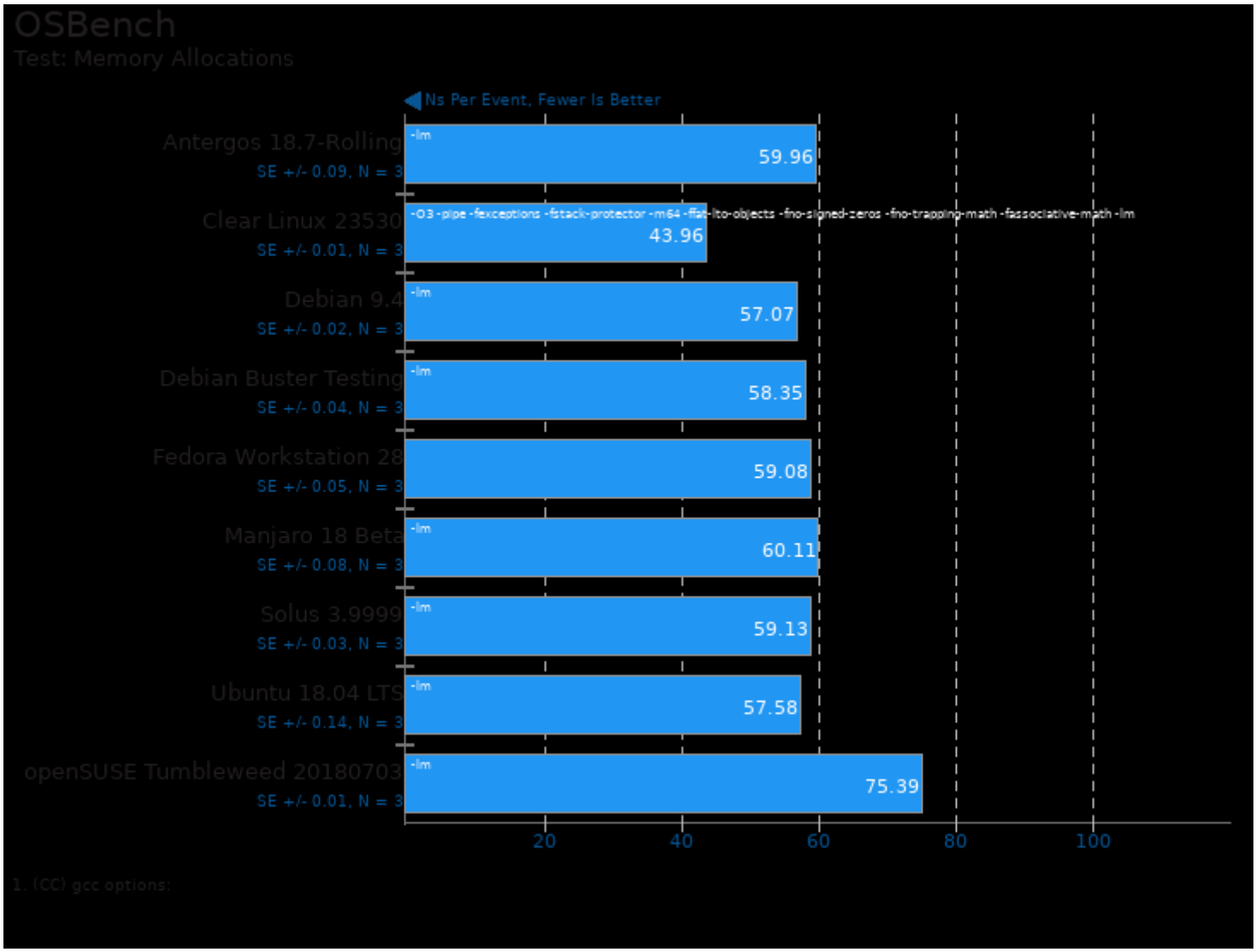

PHPBench 0.8.1
PHP Benchmark Suite
Score, More Is Better
Antergos 18.7-Rolling
SE +/- 1954.87, N = 3
817049
Clear Linux 23530
SE +/- 1293.45, N = 3
1014366
Debian 9.4
SE +/- 537.76, N = 3
657929
Debian Buster Testing
SE +/- 2639.45, N = 3
798123
Fedora Workstation 28
SE +/- 1053.96, N = 3
789209
Manjaro 18 Beta
SE +/- 723.51, N = 3
820129
Solus 3.9999
SE +/- 1562.20, N = 3
845952
Ubuntu 18.04 LTS
SE +/- 5015.92, N = 3
805127
openSUSE Tumbleweed 20180703
SE +/- 102.77, N = 3
230363
200K
400K
600K
800K
1000K


Git
Time To Complete Common Git Commands
Seconds, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.05, N = 3
4.28
Clear Linux 23530
SE +/- 0.01, N = 3
4.34
Debian 9.4
SE +/- 0.01, N = 3
4.25
Debian Buster Testing
SE +/- 0.07, N = 3
4.25
Fedora Workstation 28
SE +/- 0.00, N = 3
4.32
Manjaro 18 Beta
SE +/- 0.00, N = 3
4.31
Solus 3.9999
SE +/- 0.03, N = 3
4.31
Ubuntu 18.04 LTS
SE +/- 0.03, N = 3
4.29
openSUSE Tumbleweed 20180703
SE +/- 0.01, N = 3
5.39
1.2128
2.4256
3.6384
4.8512
6.064
1. Antergos 18.7-Rolling: git version 2.18.0
2. Clear Linux 23530: git version 2.18.0
3. Debian 9.4: git version 2.11.0
4. Debian Buster Testing: git version 2.18.0
5. Fedora Workstation 28: git version 2.17.1
6. Manjaro 18 Beta: git version 2.18.0
7. Solus 3.9999: git version 2.18.0
8. Ubuntu 18.04 LTS: git version 2.17.1
9. openSUSE Tumbleweed 20180703: git version 2.18.0

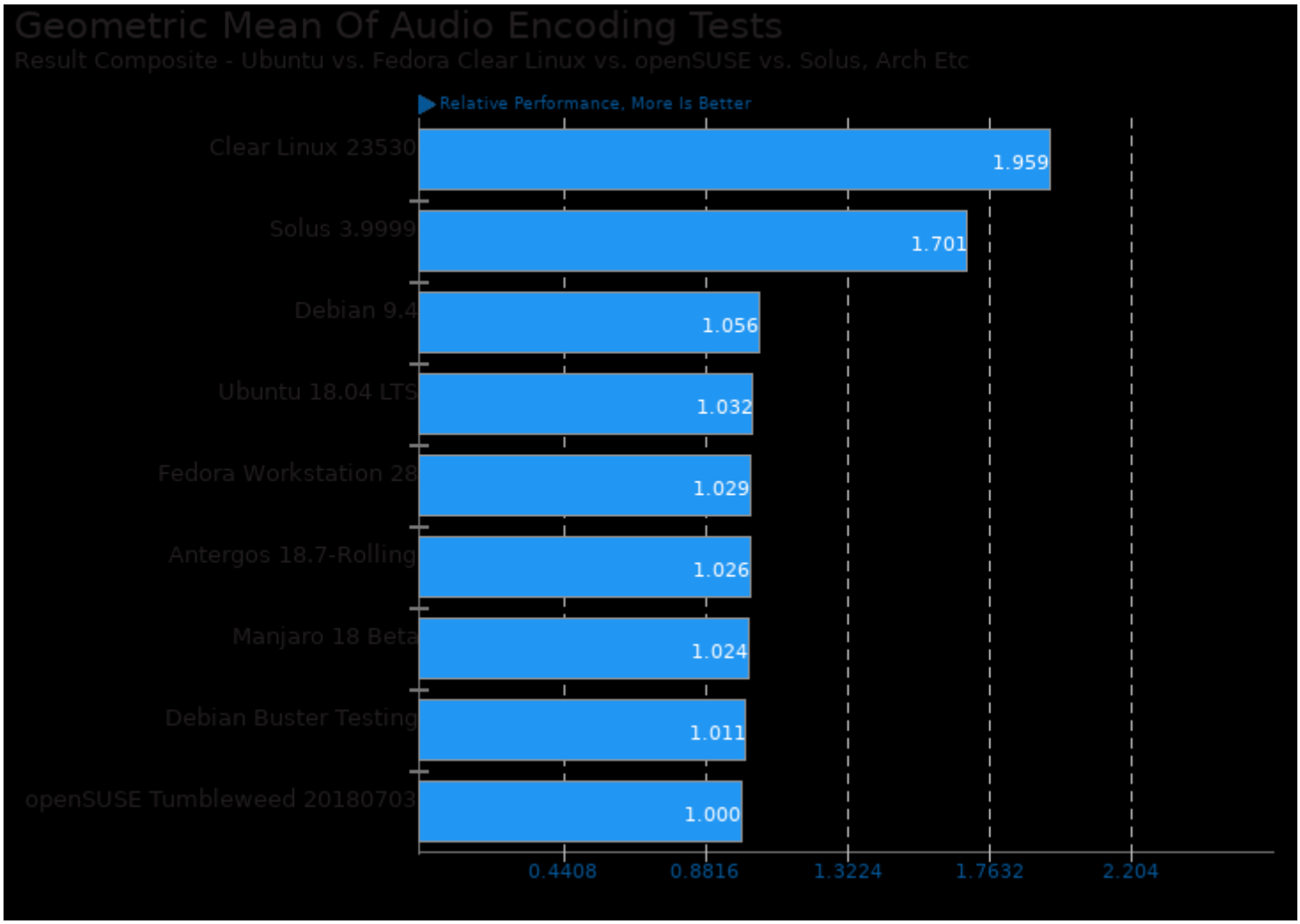

OSBench
Test: Create Files
us Per Event, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.03, N = 3
-lm
11.65
Clear Linux 23530
SE +/- 0.03, N = 3
-O3 -pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math -lm
10.53
Debian 9.4
SE +/- 0.03, N = 3
-lm
10.70
Debian Buster Testing
SE +/- 0.09, N = 3
-lm
10.45
Fedora Workstation 28
SE +/- 0.02, N = 3
16.99
Manjaro 18 Beta
SE +/- 0.04, N = 3
-lm
11.50
Solus 3.9999
SE +/- 0.04, N = 3
-lm
9.58
Ubuntu 18.04 LTS
SE +/- 0.03, N = 3
-lm
10.49
openSUSE Tumbleweed 20180703
SE +/- 0.06, N = 3
-lm
27.58
6
12
18
24
30
1. (CC) gcc options:


OSBench
Test: Create Threads
us Per Event, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.17, N = 4
-lm
10.14
Clear Linux 23530
SE +/- 0.13, N = 5
-O3 -pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math -lm
9.51
Debian 9.4
SE +/- 0.13, N = 6
-lm
8.11
Debian Buster Testing
SE +/- 0.36, N = 6
-lm
9.61
Fedora Workstation 28
SE +/- 0.15, N = 6
10.32
Manjaro 18 Beta
SE +/- 0.17, N = 4
-lm
10.29
Solus 3.9999
SE +/- 0.20, N = 3
-lm
10.04
Ubuntu 18.04 LTS
SE +/- 0.13, N = 6
-lm
9.09
openSUSE Tumbleweed 20180703
SE +/- 0.37, N = 6
-lm
11.56
3
6
9
12
15
1. (CC) gcc options:

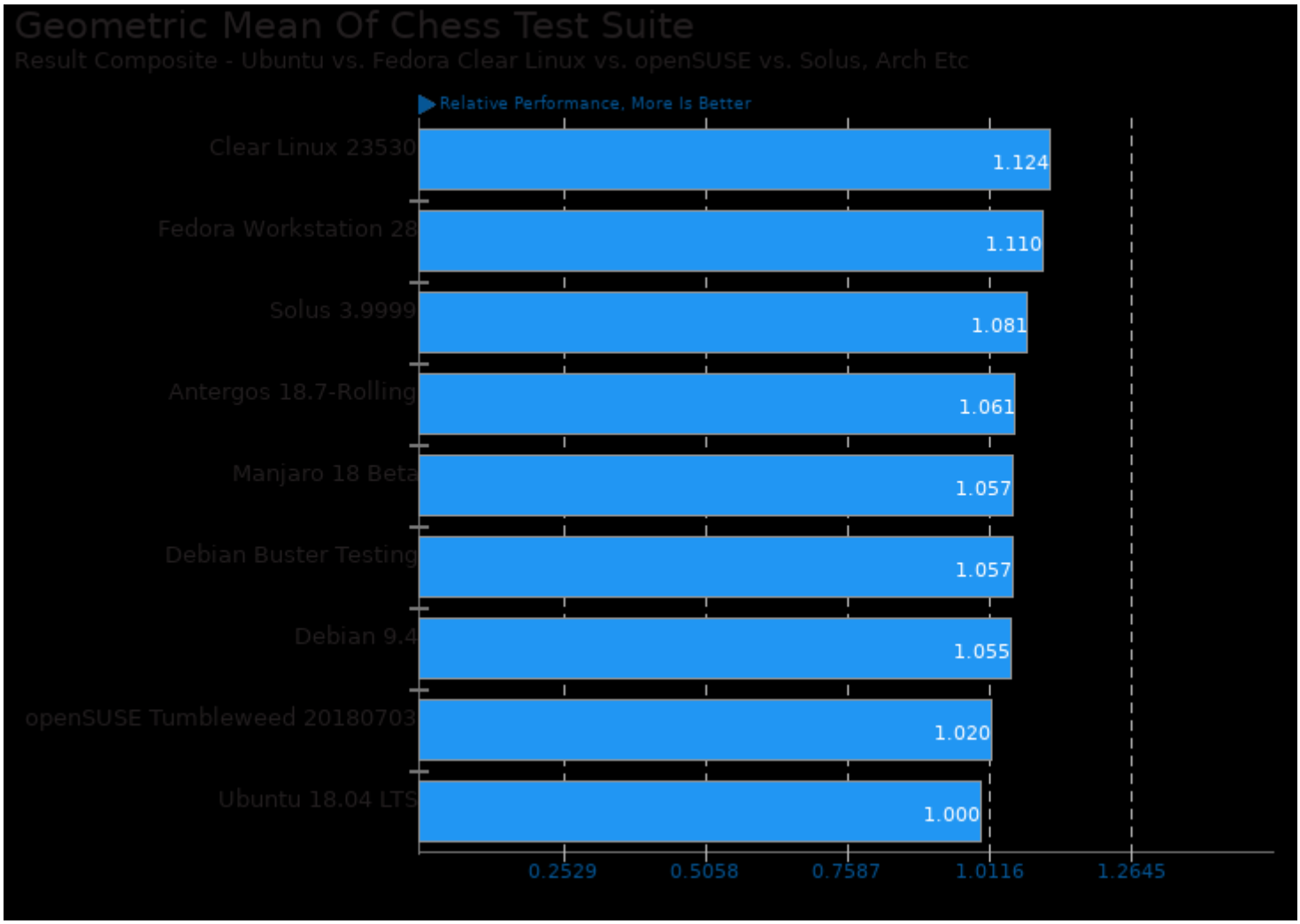

OSBench
Test: Launch Programs
us Per Event, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.08, N = 3
-lm
23.56
Clear Linux 23530
SE +/- 0.05, N = 3
-O3 -pipe -fexceptions -fstack-protector -m64 -flat-lto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math -lm
22.37
Debian 9.4
SE +/- 0.05, N = 3
-lm
20.23
Debian Buster Testing
SE +/- 0.01, N = 3
-lm
22.11
Fedora Workstation 28
SE +/- 0.03, N = 3
24.77
Manjaro 18 Beta
SE +/- 0.24, N = 3
-lm
23.84
Solus 3.9999
SE +/- 0.07, N = 3
-lm
23.43
Ubuntu 18.04 LTS
SE +/- 0.05, N = 3
-lm
21.13
openSUSE Tumbleweed 20180703
SE +/- 0.13, N = 3
-lm
24.94
6
12
18
24
30
1. (CC) gcc options:


OSBench
Test: Memory Allocations
Ns Per Event, Fewer Is Better
Antergos 18.7-Rolling
SE +/- 0.09, N = 3
-lm
59.96
Clear Linux 23530
SE +/- 0.01, N = 3
-O3 -pipe -fexceptions -fstack-protector -m64 -flto-objects -fno-signed-zeros -fno-trapping-math -fassociative-math -lm
43.96
Debian 9.4
SE +/- 0.02, N = 3
-lm
57.07
Debian Buster Testing
SE +/- 0.04, N = 3
-lm
58.35
Fedora Workstation 28
SE +/- 0.05, N = 3
59.08
Manjaro 18 Beta
SE +/- 0.08, N = 3
-lm
60.11
Solus 3.9999
SE +/- 0.03, N = 3
-lm
59.13
Ubuntu 18.04 LTS
SE +/- 0.14, N = 3
-lm
57.58
openSUSE Tumbleweed 20180703
SE +/- 0.01, N = 3
-lm
75.39
20
40
60
80
100
1. (CC) gcc options:

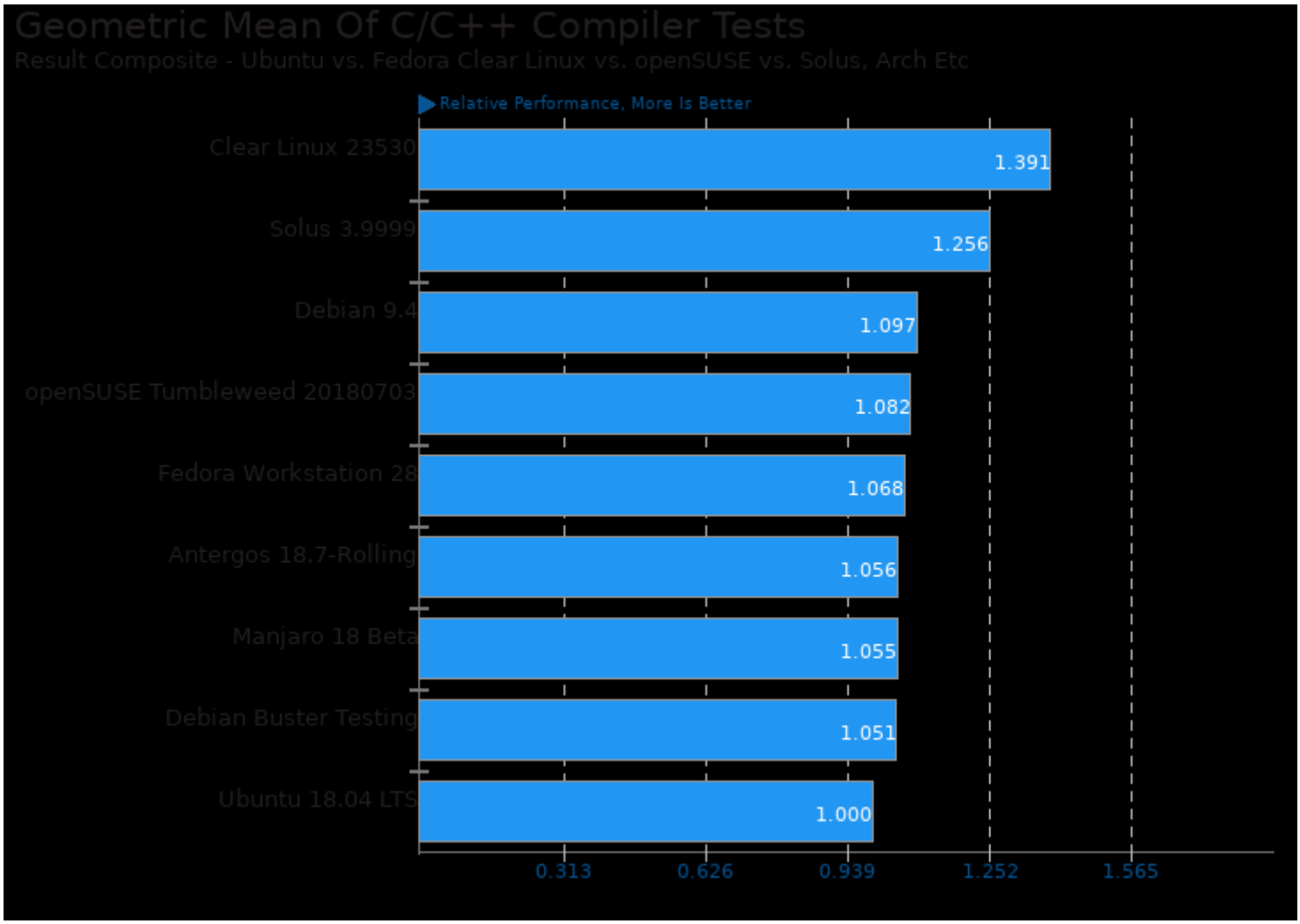
These geometric means are based upon test groupings / test suites for this result file.



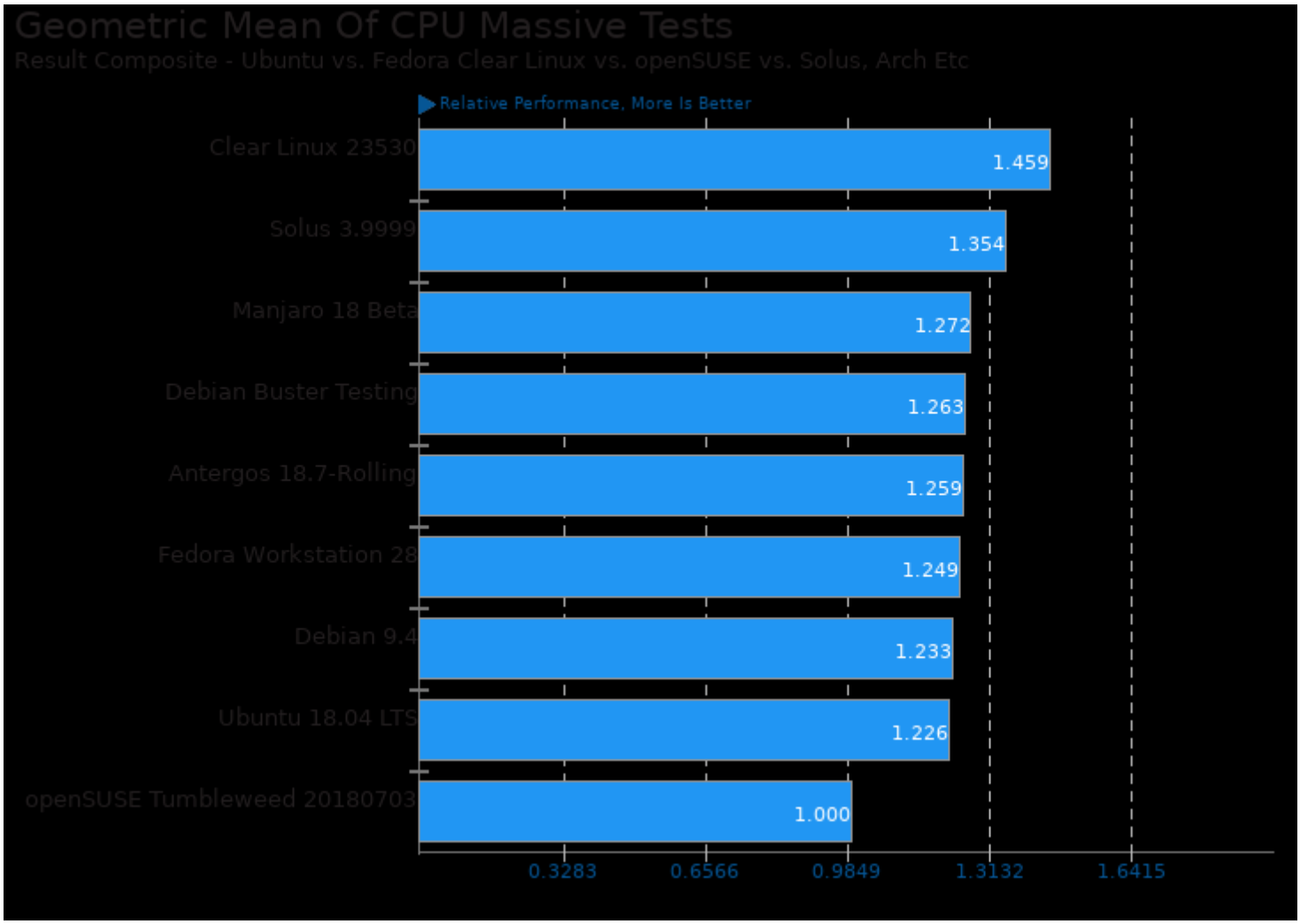
Geometric mean based upon tests: pts/encode-mp3 and pts/encode-flac



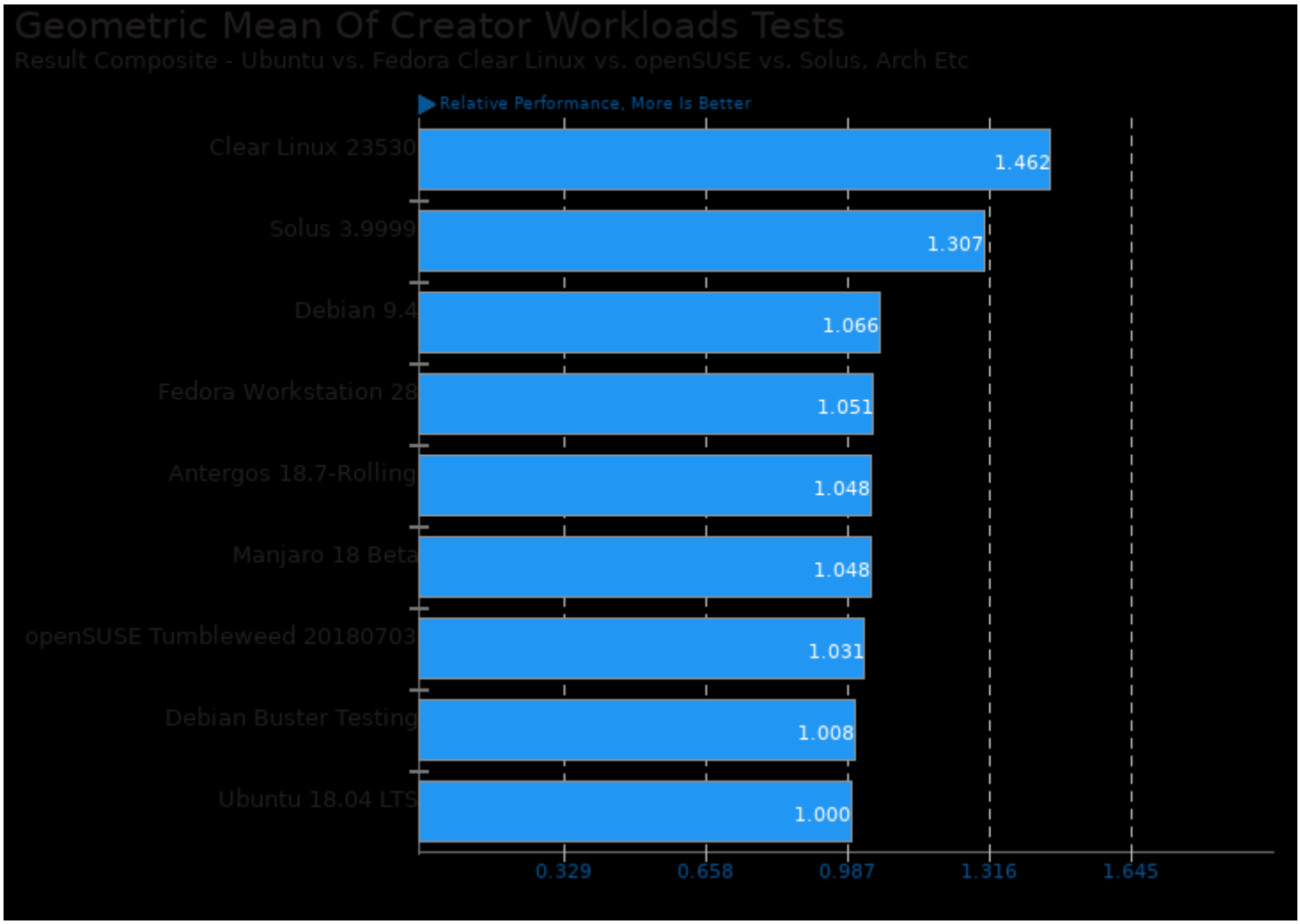
Geometric mean based upon tests: pts/crafty and pts/stockfish



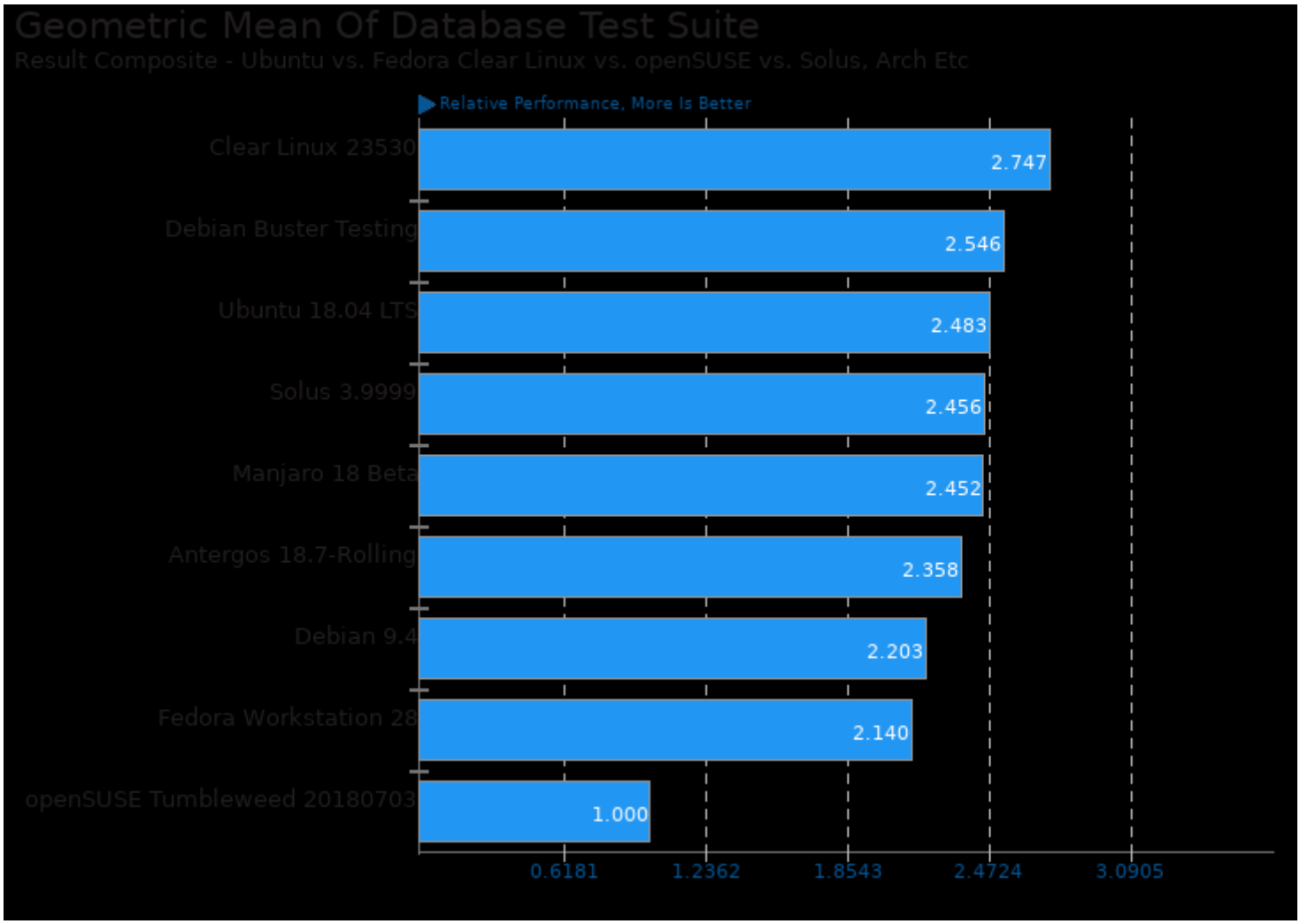
Geometric mean based upon tests: pts/vpxenc, pts/himeno, pts/stockfish, pts/c-ray, pts/encode-mp3, pts/encode-flac and pts/pgbench



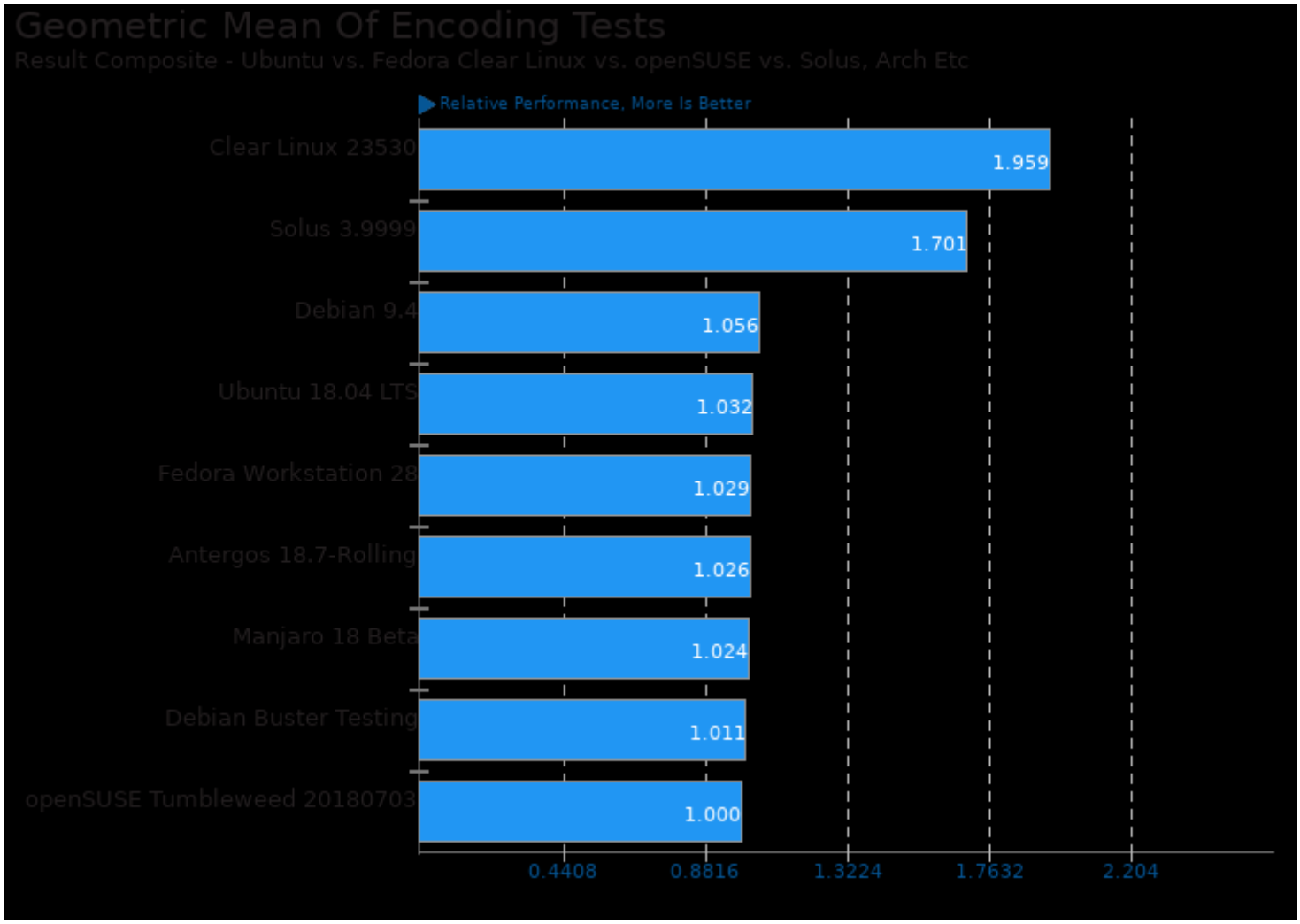
Geometric mean based upon tests: pts/build-linux-kernel, pts/c-ray, pts/crafty, pts/vpxenc, pts/encode-flac, pts/encode-mp3, pts/himeno, pts/pgbench, pts/phpbench, pts/redis, pts/rodinia, pts/sockperf, pts/stockfish and pts/tinymembench



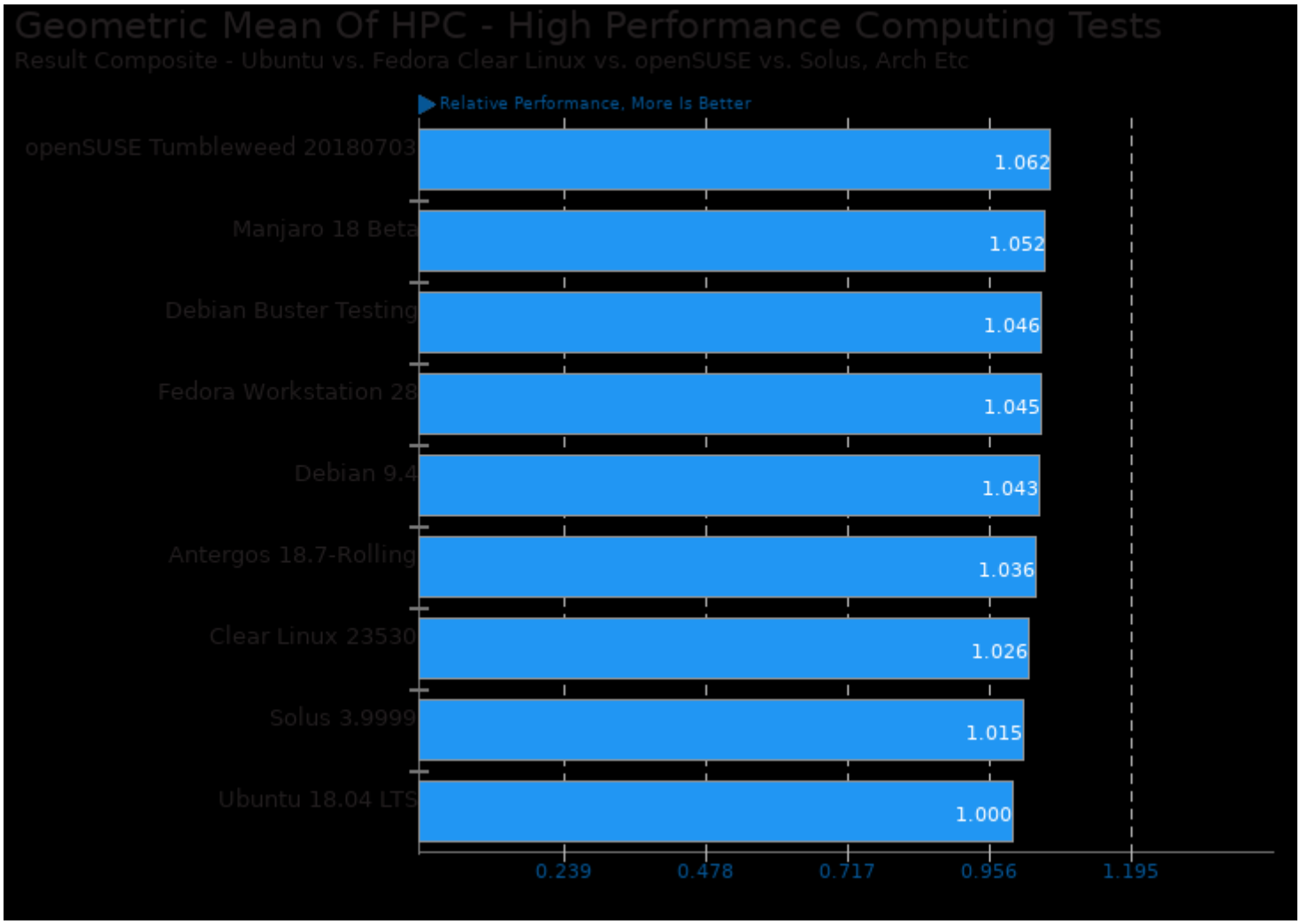
Geometric mean based upon tests: pts/c-ray, pts/vpxenc, pts/encode-mp3, pts/encode-flac and pts/luajit



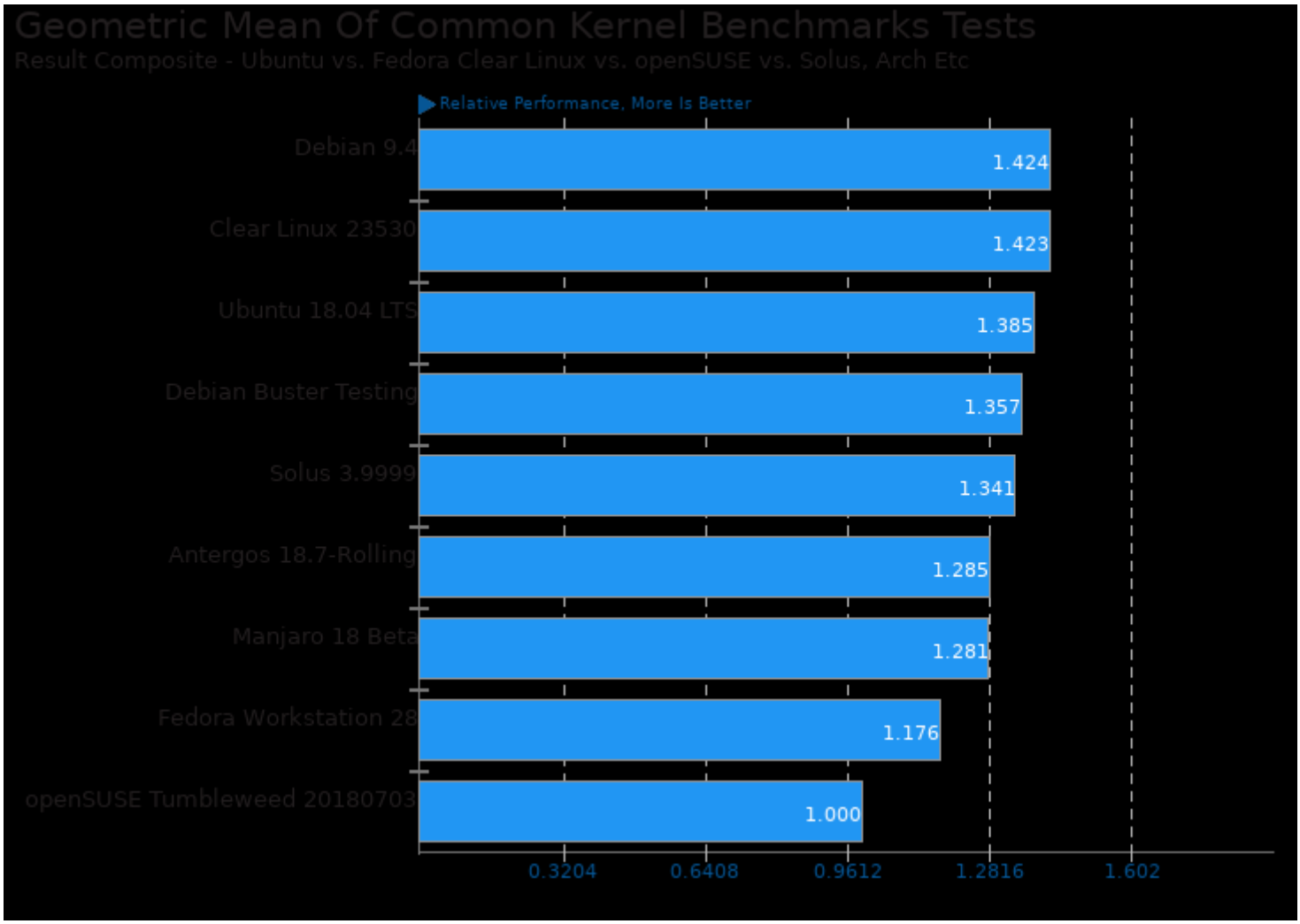
Geometric mean based upon tests: pts/redis and pts/pgbench



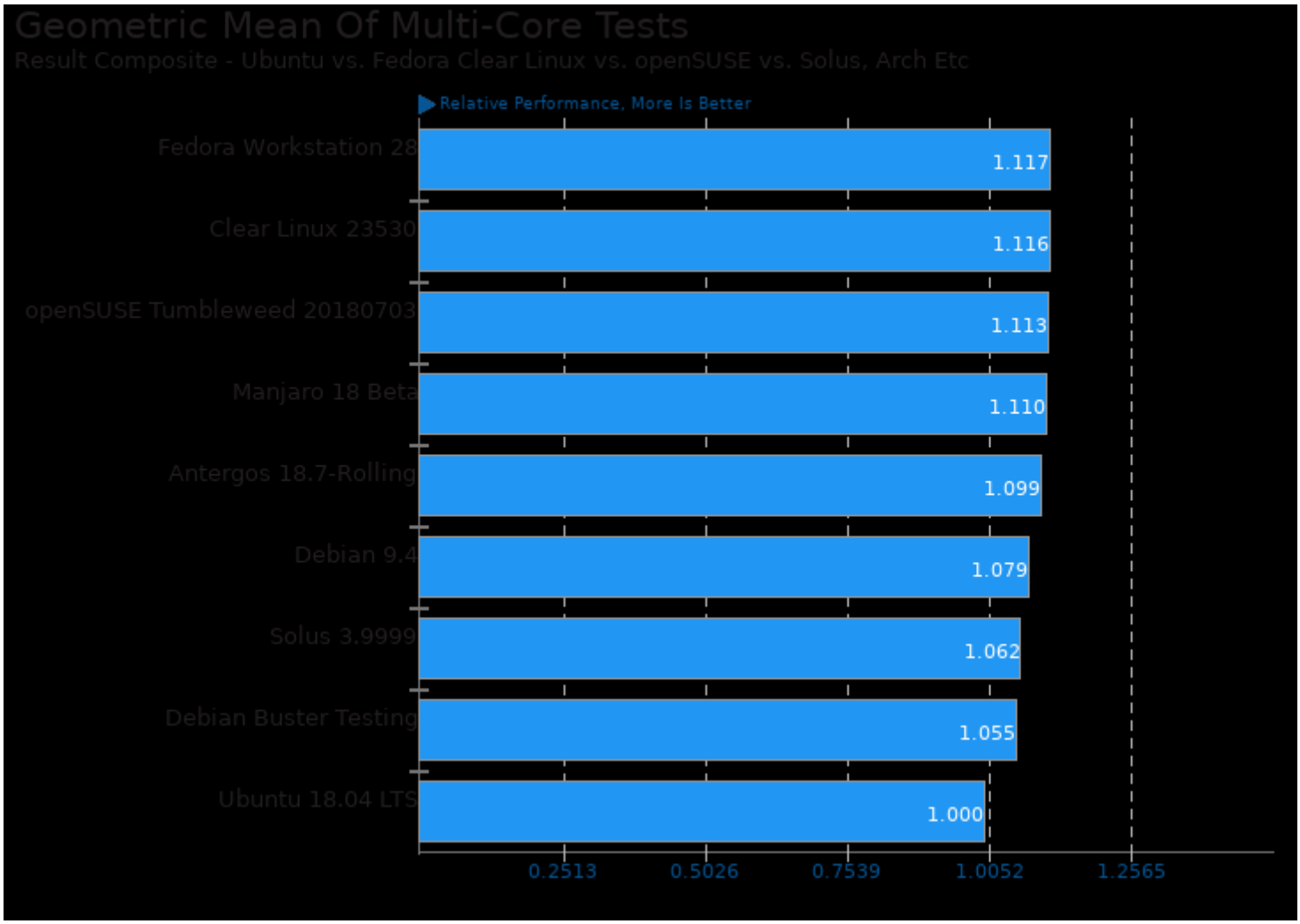
Geometric mean based upon tests: pts/encode-mp3, pts/encode-flac and pts/vpxenc



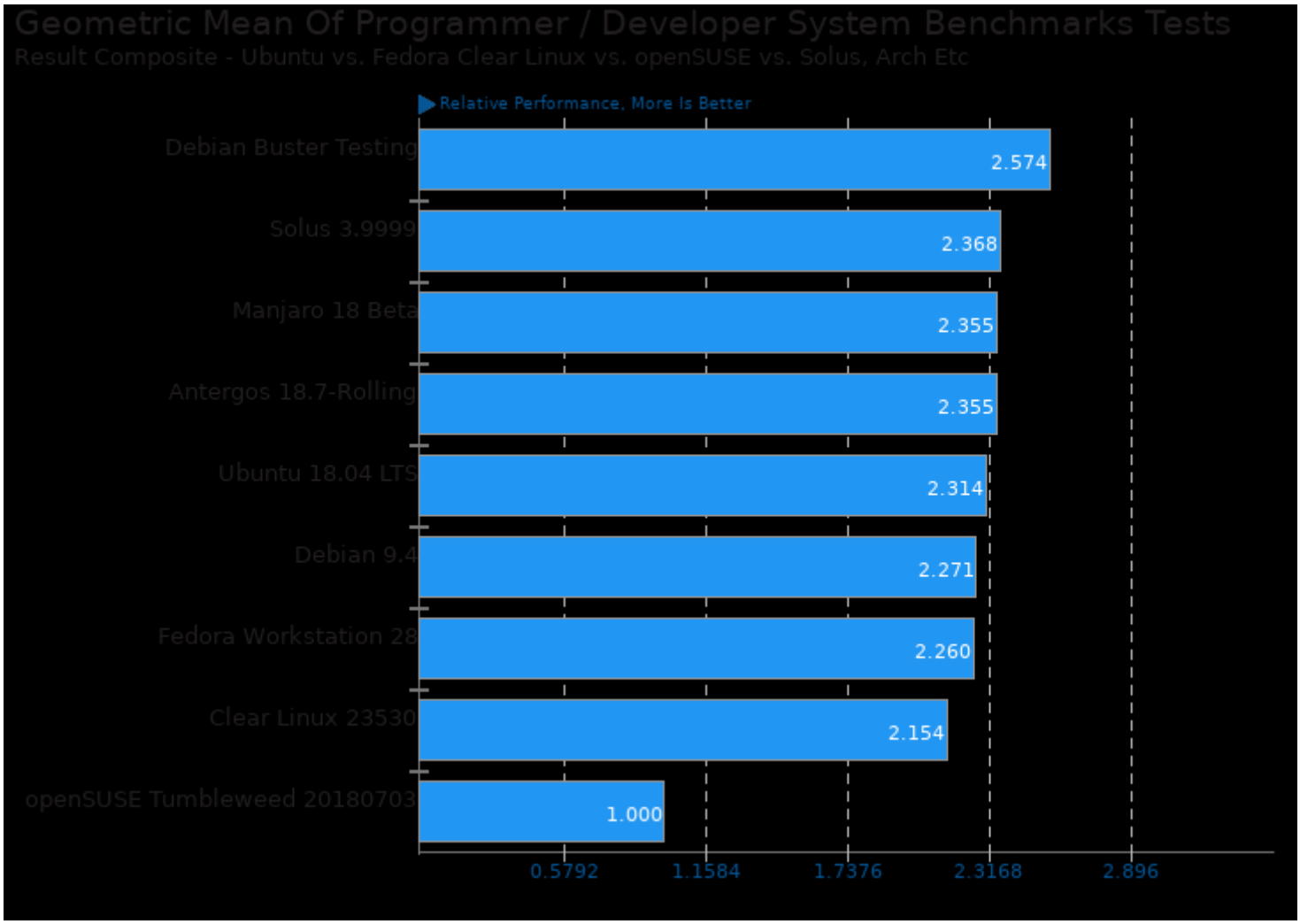
Geometric mean based upon tests: pts/rodinia and pts/himeno



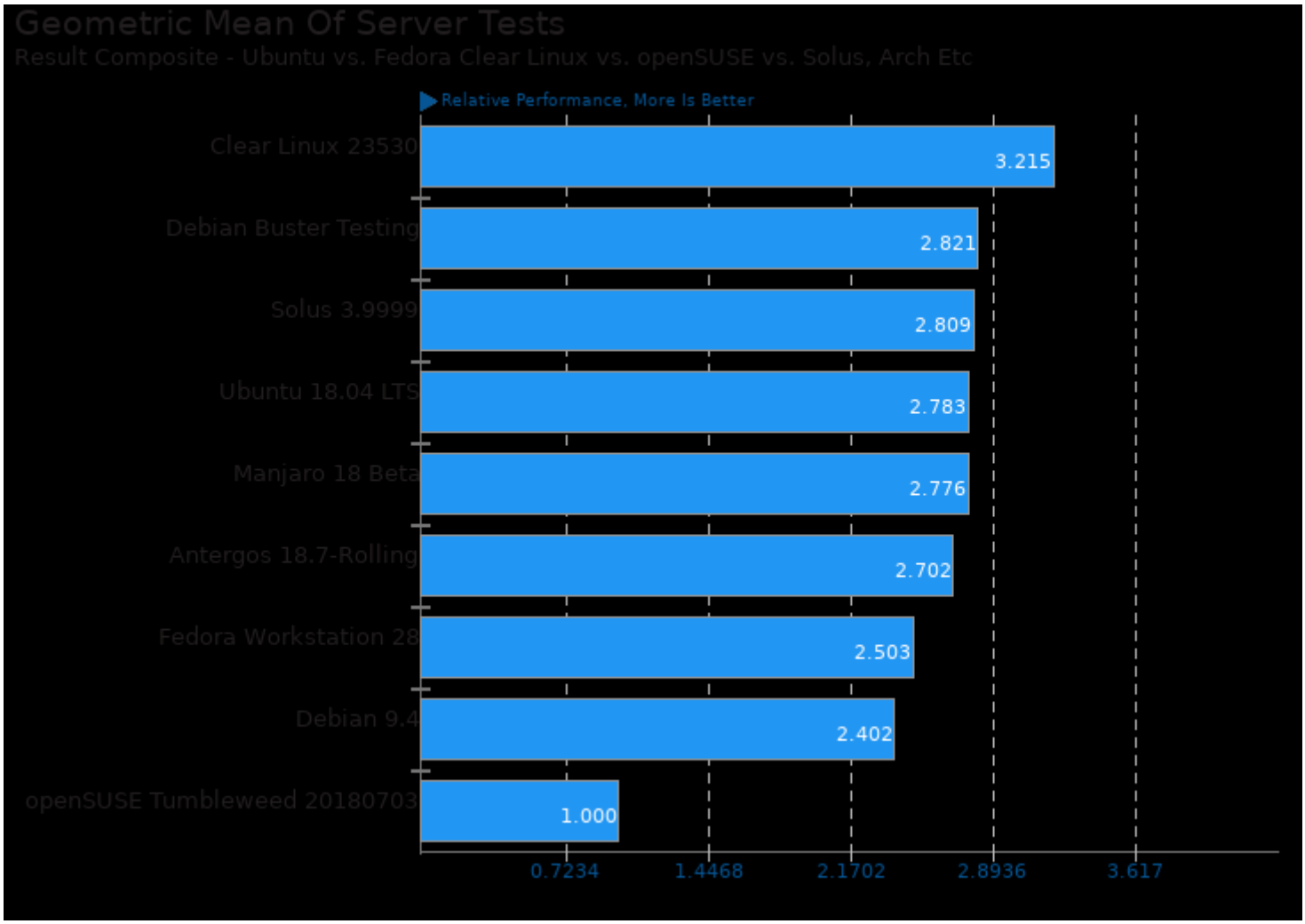
Geometric mean based upon tests: pts/pgbench, pts/tinymembench and pts/osbench



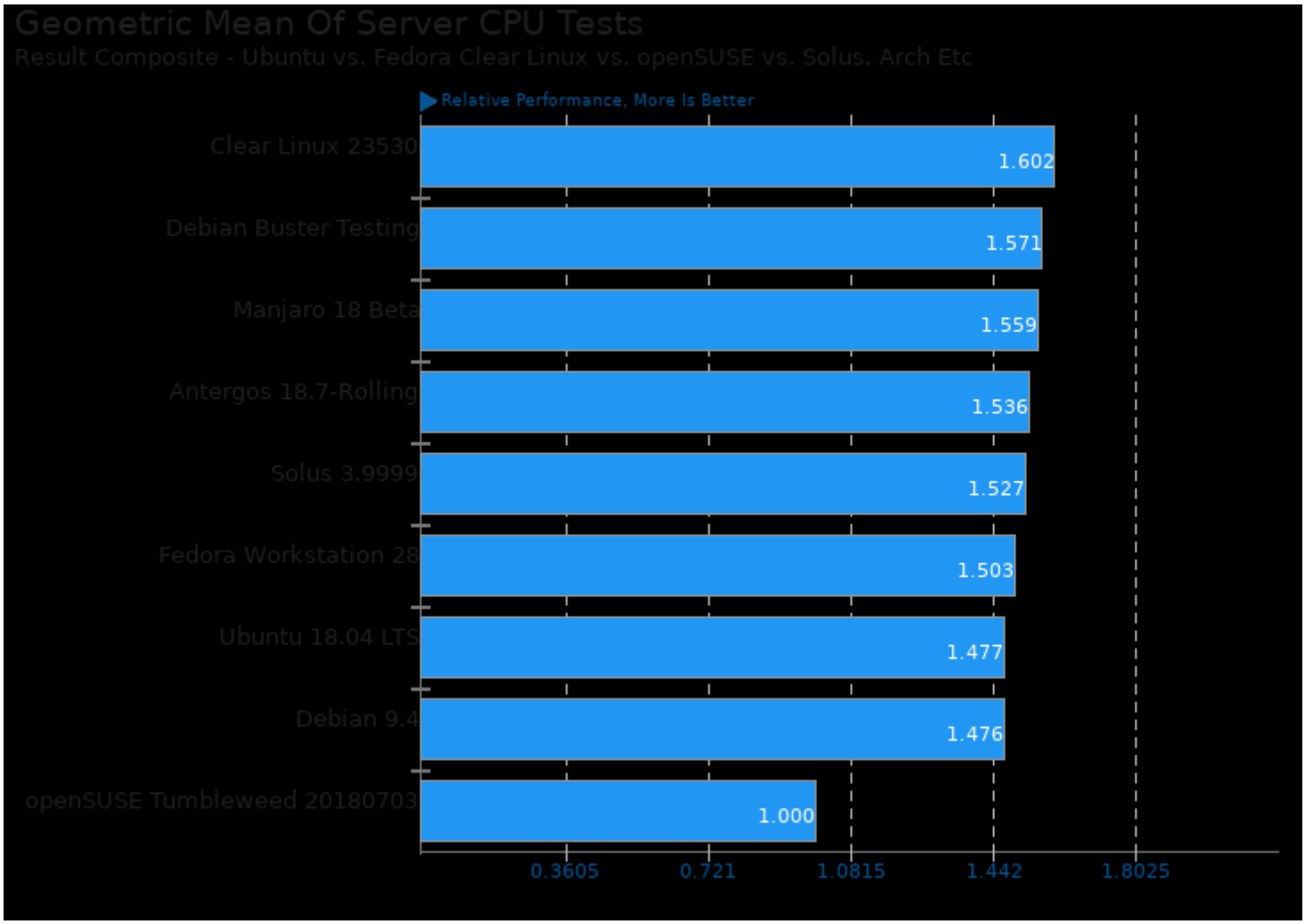
Geometric mean based upon tests: pts/c-ray, pts/stockfish, pts/vpxenc, pts/rodinia, pts/build-linux-kernel and pts/pgbench



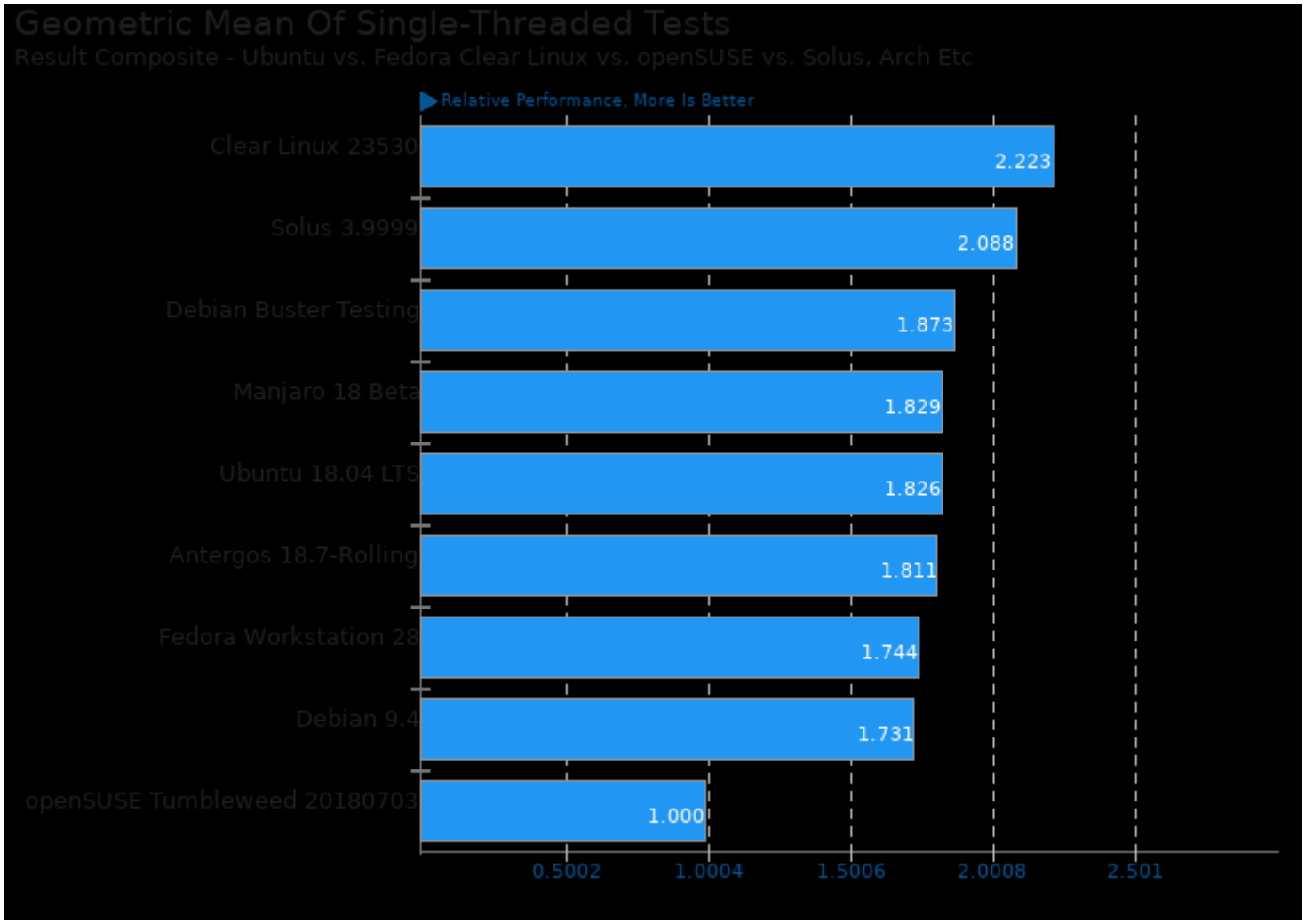
Geometric mean based upon tests: pts/git, pts/pybench and pts/build-linux-kernel



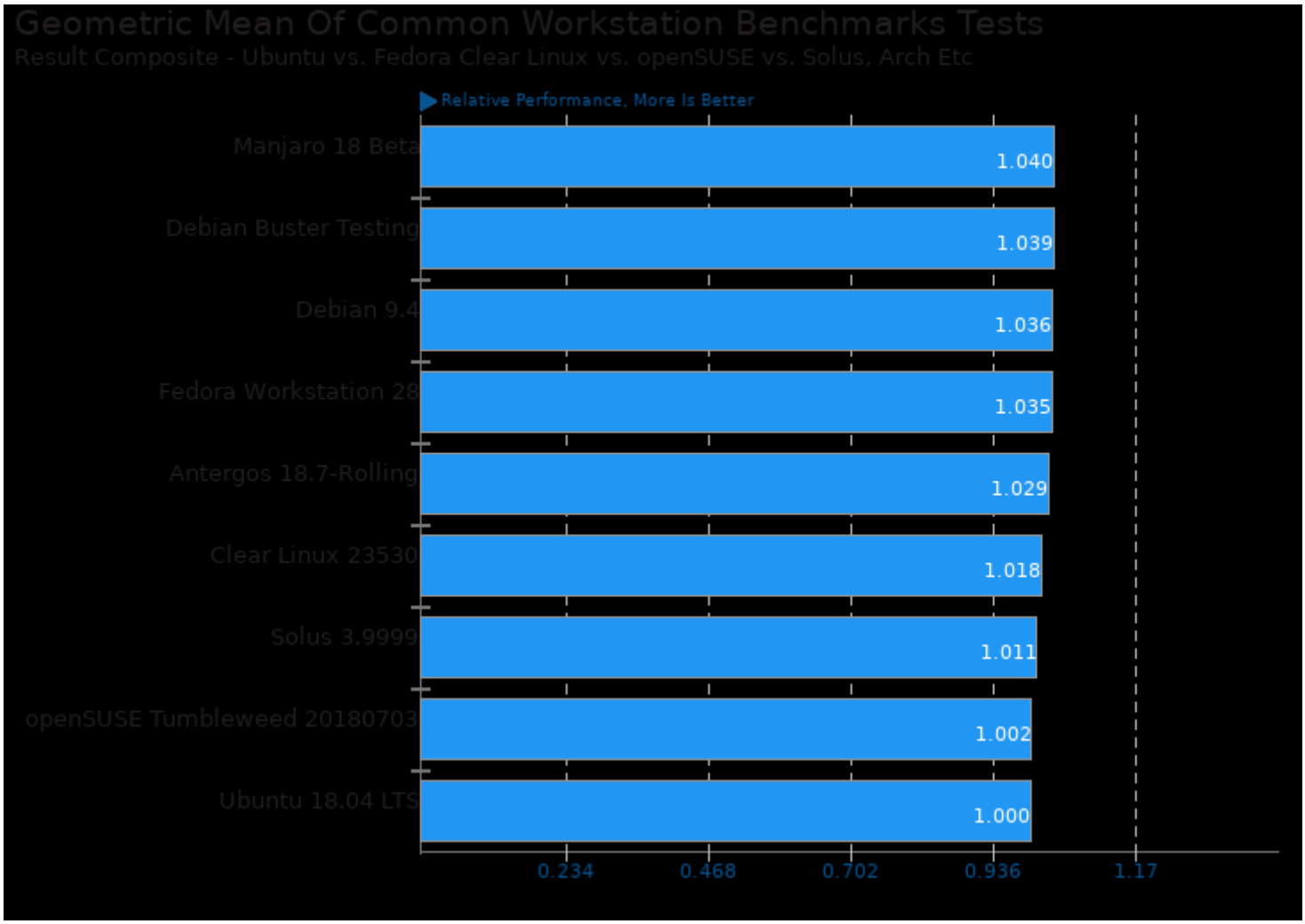
Geometric mean based upon tests: pts/pgbench, pts/redis and pts/phpbench



Geometric mean based upon tests: pts/rodinia, pts/himeno, pts/stockfish, pts/build-linux-kernel, pts/c-ray, pts/redis, pts/pybench and pts/phpbench



Geometric mean based upon tests: pts/luajit, pts/encode-flac, pts/encode-mp3, pts/system-libxml2, pts/redis, pts/pybench, pts/phpbench and pts/git



Geometric mean based upon tests: pts/rodinia, pts/himeno, pts/paraview and pts/git

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 11:52.